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# Domestic Fire Hazard in New Zealand

BY

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# Abstract

This report presents features of domestic fires within New Zealand over the period 1986 to 1994 inclusive.

It consists of an analysis of the New Zealand Fire Incident Reporting System (FIRS) that the Fire Service completes for every incident it responds to. Areas investigated are the area of fire origin, equipment involved in ignition, form of heat of ignition, type of material first ignited, form of material first ignited, and the ignition factor or cause.

Features of the casualties such as their location at the time of injury, activity at time of injury, day of week injured, time of day injured, and age of those injured have been investigated.

A literature search of socio-economic features that affect the incidence of domestic fires and the effectiveness of smoke alarms is included.

# Acknowledgments

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# 1. Introduction

It is a reasonably well known fact that domestic properties feature highly in the percentage of fires and percentage of fire casualties that occur each year in many countries around the world. The aim of this paper was therefore to look at the domestic fire problem occurring in New Zealand.

The paper focuses primarily on the fires that occurred in permanent private dwellings (one and two family dwellings, flats, townhouses, and apartments) and the features of the civilian casualties that resulted from such fires.

The investigation comprised of analysing the New Zealand Fire Service Fire Incident Reporting System (FIRS) data for the period July 1, 1986 to June 30, 1994. Features of the domestic fires that were looked at were, the area of fire origin, the type of equipment which contributed to the heat of ignition, the heat of ignition itself, the type and form of material that was first ignited, and what factors caused the ignition. These features were investigated for domestic fires as a whole, domestic fires that resulted in an injury, and domestic fires that resulted in a fatality.

Features of the casualties that were looked at were: the location of the victim at the time of injury; the activity of the victim at the time of injury; the condition of the victim before injury; the condition preventing escape; the nature of the injury; the day of week the person was injured or killed; and the time of day the person was injured or killed.

An investigation of effectiveness of smoke detectors in domestic properties has been carried out. This is mainly based on the USA and UK experience as there is insufficient data to draw any conclusions from smoke alarm usage in New Zealand.

It is also known that there are certain community characteristics that can have an effect on the fire incidence rate. An overseas study along with the report undertaken by Ogilvy and Mather Public Relations for the New Zealand Fire Service in 1995 are summarised in this paper.

# 2. Fire Incident Reporting System (FIRS)

## 2.1 Background

The New Zealand FIRS database is based on the guidelines of the NFPA 902M Fire Reporting Field Incident Manual (Narayanan and Whiting, 1996). This manual was developed in the United States of America to provide fire departments with a uniform system for collecting and using data, based on the NFPA 901. It contains instructions for the completion of the Basic Incident Report, the Basic Casualty Report, and the Basic Emergency Medical Service Report.(NFPA, 1990).

The NFPA 901 'Standard Classifications for Incident Reporting and Fire Protection Data' is a recommended practice, which was officially established in 1969, after starting out as a fire reporting system published by the National Fire Protection Association (NFPA) in 1938. It was created out of a need for uniform information about fire incidents and for an effective method of collecting and using that information. The objective of such a system is to provide uniform data to regional, national, and international fire and emergency organisations in order to: make the extent of the fire and emergency problem known; reveal trends that require action upon; guide development and administration of codes and standards; and guide fire prevention, fire protection, emergency medical treatment, and hazardous materials handling research (NFPA, 1995).

The New Zealand Fire Service adopted the Basic Incident Report and Basic Casualty Report forms during the early 1980's. Accompanying these forms is a coding manual, which is taken directly from NFPA 901, and has been updated as amendments were made to the NFPA 901.

The coding manual referred to for all the fields studied in this report is the 1992 edition which is referred to in the Fire Service as the "red coding manual". This manual came into effect January 1, 1993, and was of the same structure as the manual used previously, but included many more sub-categories under each category. The computer records of FIRS for the years 1986 to 1993 were then updated as best as possible to the 'red manual'. This explains in part why there is a higher percentage of double zero ending codes for the years 1986 to 1992 as shown in the tables in the appendices. A double zero ending code is for entries where there was insufficient information to classify further. When the data was recorded prior to January 1, 1993, there were not as many sub-categories to choose from and consequently many entries were simply recorded as insufficient information to classify further.

Every time the Fire Service responds to an alarm, an incident occurs. The incident may be a fire, smoke scare, rescue, false alarm, or hazardous materials situation. In all cases an incident report is to be filled out.

In July 1995 a new coding manual accompanied by a new incident report form was introduced to fire brigades throughout New Zealand. This new coding system has introduced many new fields and addressed some of the problems of the previous coding manual. The basic structure of the coding system has not changed which is an important feature, as it allows for comparison between pre and post July 1, 1995 data.

## 2.2 Analysis of FIRS

The FIRS database for the years beginning July 1, 1986 to 1994 were supplied by the New Zealand Fire Service. These were imported into Microsoft Access 2.0 as nine separate databases (one database for each financial year). To extract data from these databases the same queries were ran in each database and the results transferred and collated in Microsoft Excel.

The spreadsheets of the results make up the tables included in the appendices. In many instances these tables are summarised to produce generalised tables and figures which are included in the body of the report.

### 2.2.1 Fire Incidents

In this report a fire incident is taken to be any response to an instance of uncontrolled burning and combustion explosions, including blazes which are out by the time the fire department arrives at the scene. Additional to this any incidents of controlled burning that the Fire Service attended are also included as fire incidents.

The fire incidents extracted from the FIRS database therefore have the following criteria:

- A 'type of incident' coding of '1???', where a question mark represents any single digit, or '6301', or '6302', or '6303'.

### 2.2.2 Fire Casualty

A fire casualty is a term that collectively takes into account fatalities and injuries received by civilians as a result of a fire incident. A civilian in this report is taken to be anyone other than a firefighter or service personnel (such as police, ambulance and traffic officers).

### 2.2.3 Fire Injury

A fire injury is an injury that a civilian received from fire or fire products at a fire incident. Fire injuries therefore have the following criteria:

- An 'incident' code listed in the casualty table, as supplied by the Fire Service.
- A 'type of incident' coding the same as a fire incident (see section above).
- An 'injury/fatality indicator' coding of '1'.

- A 'cause category' coding of '1'.
- A 'role' coding of '3'.

### 2.2.4 Fire Fatality

A fire fatality is a death to a civilian as a result of being exposed to fire or fire products at a fire incident. Fire fatalities therefore have the following criteria:

- An 'incident' code listed in the casualty table, as supplied by the Fire Service.
- A 'type of incident' coding the same as a fire incident.
- An 'injury/fatality indicator' coding of '2'.
- A 'cause category' coding of '1'.
- A 'role' coding of '3'.

### 2.2.5 Domestic Fire Incidents

A domestic fire incident in this report is taken to be a fire incident that involves a fire in a permanent fixed dwelling (ie one and two family dwellings, apartments, home units, town houses, and flats). Therefore a domestic fire incident has the following criteria:

- A 'type of incident' coding of '11??', where a question mark represents any single digit.
- A 'fixed property use' coding of '41??', or '42??'

### 2.2.6 Domestic Fire Casualty

A domestic fire casualty is a term that collectively takes into account fatalities and injuries received by civilians as a result of a domestic fire incident.

### 2.2.7 Domestic Fire Injury

A domestic fire injury is an injury that a civilian received from fire or fire products at a domestic fire incident. Domestic fire injuries therefore have the following criteria:

- An 'incident' code listed in the casualty table, as supplied by the Fire Service.
- A 'type of incident' coding the same as a domestic fire incident (see section above).
- A 'fixed property use' coding the same as a domestic fire incident.
- An 'injury/fatality indicator' coding of '1'.
- A 'cause category' coding of '1'.
- A 'role' coding of '3'.

### 2.2.8 Domestic Fire Fatality

A domestic fire fatality is a death to a civilian as a result of being exposed to fire or fire products at a domestic fire incident. Domestic fire fatalities therefore have the following criteria:

- An 'incident' code listed in the casualty table, as supplied by the Fire Service.
- A 'type of incident' coding the same as a domestic fire incident.
- A 'fixed property use' coding the same as a domestic fire incident.
- An 'injury/fatality indicator' coding of '2'.
- A 'cause category' coding of '1'.
- A 'role' coding of '3'.

# 3. Fire Incidents

## 3.1 Number of Incidents

During the period 1986 to 1994 inclusive the New Zealand Fire Service attended a total of 198846 fire incidents. This equates to an average of 22100 fire incidents each year.

It is to be noted that the number of fires each year cited in this report are different than those displayed in the New Zealand Fire Service annual 'Emergency Incident Statistics' publications. This is because the numbers presented in this paper are based on the 'financial' year. For example, incidents quoted for the year 1986 actually occurred between July 1, 1986 and June 30, 1987. The New Zealand Fire Service started representing the data in this manner in 1993, but earlier the data was represented as the calender year (ie. January 1 to December 31). Additionally unlike the Emergency Incident Statistics publications there has been no distinction made for oven and chimney fires. These have simply been included as either a domestic fire or other structure fire, depending on what type of building the chimney or oven is located in.

## 3.2 Types of Incidents

A breakdown of where the fire incidents occurred in the period 1986 to 1994 is given in Figure 3-1 to give an indication as to where domestic fires fit into the fire problem in New Zealand. The percentages are based on the incident type fields in the FIRS database.

Domestic structures, ie one and two family dwellings, apartments, townhouses, and flats had the highest incidence of fires, accounting for just over one fifth (21%) of the total fire incidents occurring each year in New Zealand.

The second largest portion of fires occurred outdoors and involved some form of vegetation (19%). These vegetation forms include forests, agricultural crops, grass and scrub, and single trees. It is to be noted that technically the incidence of vegetation fires is actually higher than that shown in Figure 3-1. This is because the 'controlled burning' incidents typically involve cases where agricultural land is being cleared of scrub and crop stubble.

Mobile property fires (13%) involved all forms of mobile property including: cars, trucks, caravans and motor homes (both in transit and stationary), boats, and aeroplanes. The majority of these fires however involved cars, with there being very few boat and aeroplane fires.

The other structural section (11%) obviously includes fires in all structures other than domestic structures, eg hotels, shops, factories, office blocks, schools, etc.

The 'other' category includes the fire incidents that were classified in the 'fires involving chemicals, flammable liquids and gases' and 'miscellaneous' sections of the incident type field.

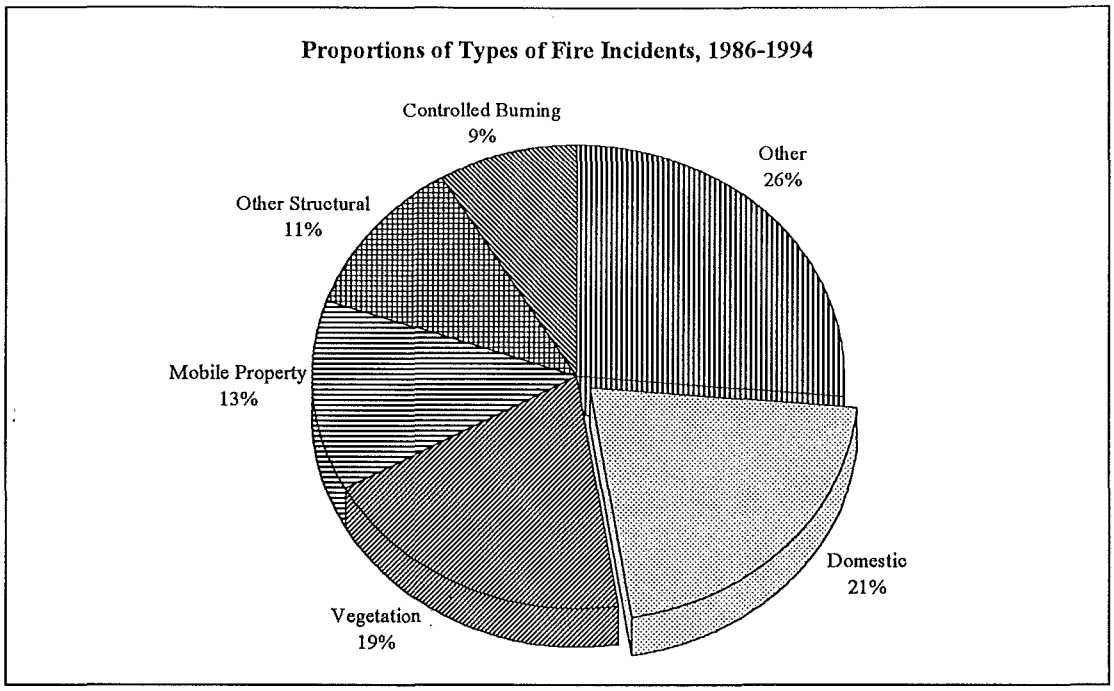



**Figure 3-1: Percentages of the different areas where fires occurred over the years 1986-1994.**

# 4. Domestic Fires

## 4.1 Number of Incidents

Over the period 1986 to 1994 inclusive there were a total of 42009 domestic fire incidents. This is an average of 4668 domestic fires each year.

**Table 4-1: The number of domestic and total fire incidents occurring each year from 1986 to 1994.**

| Fire Incident | Year | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | |
| Domestic | 4318 | 4696 | 4420 | 4541 | 4653 | 4774 | 4750 | 5024 | 4833 | 42009 |
| Total | 21360 | 21914 | 22564 | 21518 | 22420 | 21825 | 20897 | 22580 | 23768 | 198846 |

## 4.2 Features of the Fires

Describing the ignition of each fire incident are five key fields. These are the area of fire origin, the equipment involved, the form of heat, the material type, the material form , and the ignition factor. These have been investigated separately and make up the following sections.

### 4.2.1 Area of Fire Origin

The area of fire origin is classified according to the use of the room or area within the property at the time of the incident. The area of origin is either a room, a space or portion of a room, a vehicle or portion of a vehicle, or an open area dedicated to a single use (NFPA, 1995).

The most common area of fire origin for domestic fires over the period 1986 to 1994 was the kitchen (22.2%), as shown in Figure 4-1. The next most frequent area of fire origin was the chimney (15.3%), but the majority of these fires did not spread to other areas and were contained within the chimney.

In order of diminishing frequency, lounges and dining rooms (14.0%) were next, then bedrooms (11.1%), structural areas (8.5%), followed by laundry rooms and wash houses (3.3%).

The majority of structural area fires were those that originated on an exterior wall surface (2.7%) and in the ceiling/roof assembly area (2.0%).

The 'other' category (26.6%) is mainly made up of incidents that were recorded as having insufficient information to classify further (15.3%). The category also includes all the previous non-mentioned areas of fire origin which are detailed in Tables B-1 and B-2 in Appendix B. These tables present the number of domestic fires starting each year by the area of origin.

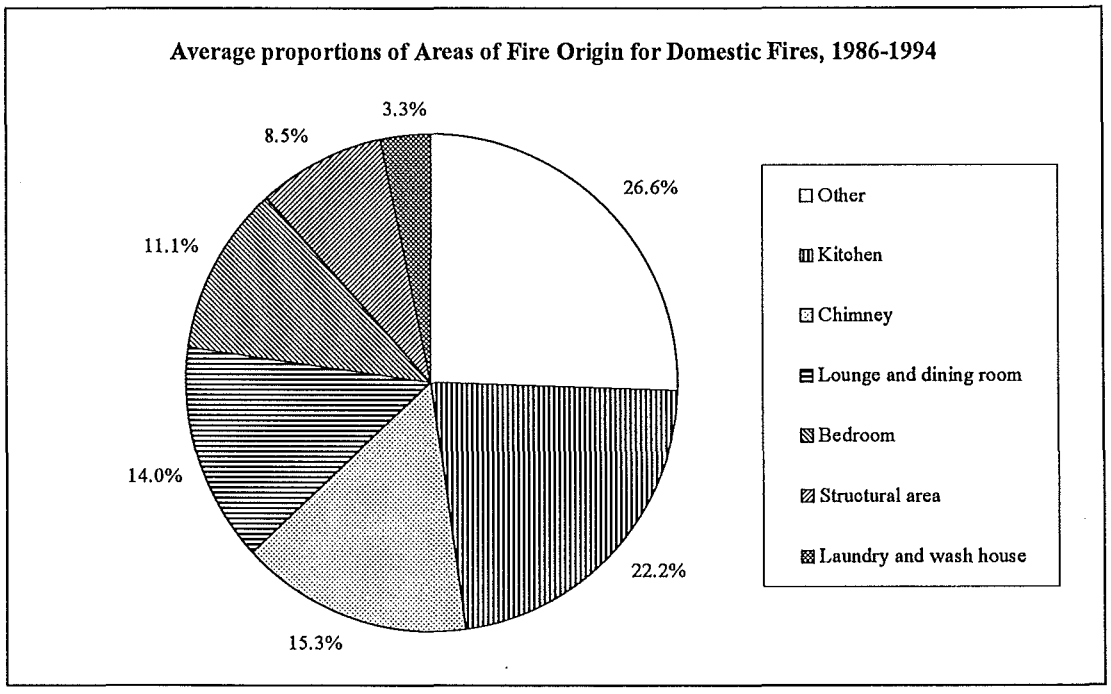



**Figure 4-1: Proportion of areas of fire origin for domestic fires over the years 1986-1994.**

### 4.2.2 Equipment Involved in Ignition

The equipment involved in ignition is the piece of equipment where the heat of ignition originated (NFPA, 1995).

This section is very thoroughly broken down in the coding manual to cover almost all the different types of equipment that can be expected. A few of the more frequently occurring types are presented in Figure 4-2. A detailed list of all the types of equipment involved and the number of times they were associated with an ignition of a domestic fire over the years 1986 to 1994 is presented in tables B-3 to B-6.

The greater majority of this field is made up of incidents where no equipment was involved in the ignition (57.3%). This coding is used when the heat of ignition is from items such as, solid fuelled burners, hot ember ash, heat from properly operating electrical equipment, fireworks, smoking materials, and exposure fires.

Stove tops and ovens (11.0%) were the most common forms of equipment involved in domestic fires. The majority of which were powered by electricity.

Indoor fireplaces (6.4%) which contributed to domestic fires were mainly of the in-built open front type (2.7%) and the free standing pot-belly or square firebox type (2.1%).

The electrical appliances (4.5%) section covers all forms of appliances, including such items as televisions, stereos, dryers, washing machines, hand tools, floor care equipment, irons, jugs, fans, and clock radios. Excluded from this section however are appliances used for cooking or food warming, such as toasters, mini ovens, crock pots, bread-makers, food processors, and camp stoves (these are included in the other category along with all the other types of equipment not specifically mentioned in Figure 4-2).

One particular form of electrical appliance which are significant in the number of fire ignitions they are associated with are electric blankets (2.5%), and have consequently been represented separately in Figure 4-2.

The chimney and connection category shown in Figure 4-2 (2.6%) includes the flue of the chimney and the connection between the chimney and the fire box. It is to be noted that chimney fires that only ignited materials in the chimney are not classified in this section, instead they are added to the 'no equipment involved' section.

Electrical distribution equipment (2.6%) includes fixed wiring, transformers and associated equipment, meter boxes, power switch gear, over current protection devices, switches, outlets, lighting fixtures, cords, plugs, lamps, and light bulbs.

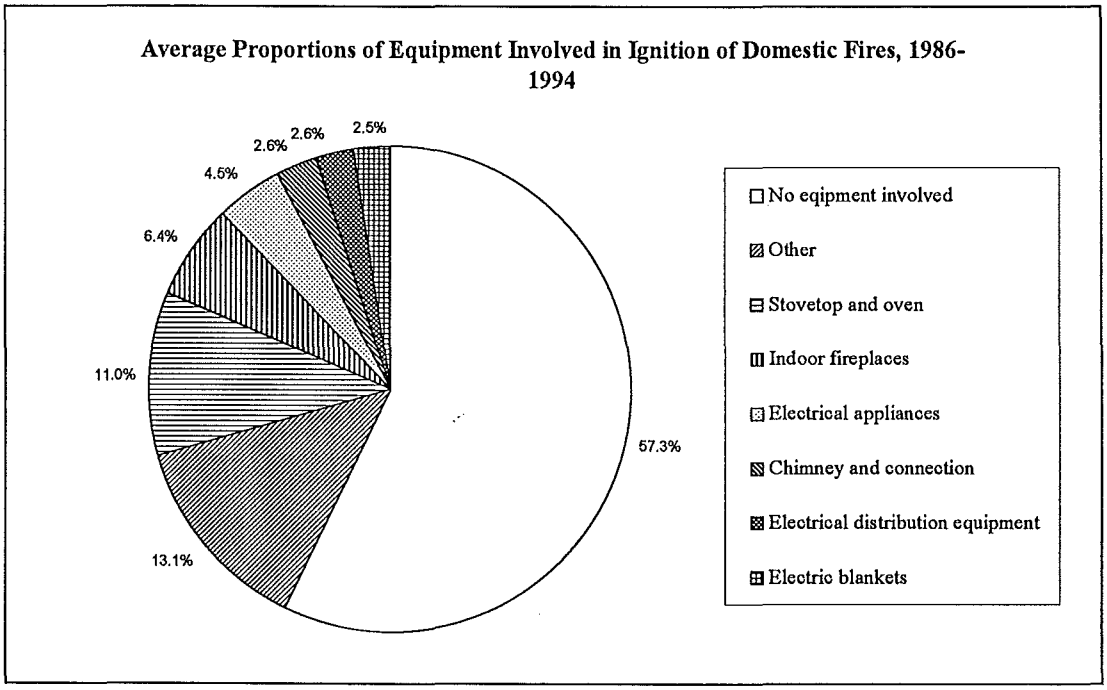



**Figure 4-2: Proportion of equipment involved in ignition for domestic fires over the years 1986-1994.**

### 4.2.3 Form of Heat of Ignition

The form of heat of ignition coding identifies the heat energy that ignited the fire, and in most cases will refer to the equipment involved (NFPA, 1995).

Figure 4-3 shows the relative proportions of various forms of heat of ignition that were recorded to be responsible for domestic fires from 1986 to 1994. A detailed table of the forms of heat of ignition by the number of times they were involved is given in Tables B-7 and B-8.

The leading form of heat of ignition is heat from hot objects (25.4%), which includes heat from properly operating electrical equipment (16.7%) and heat from embers or ash (4.2%).

Smoking materials and other open flames (15.5%) includes cigarettes (2.7%), matches (4.1%), lighters (1.9%), candles (1.0%) and cases where it was recorded to be possibly one of these, but there was insufficient information to classify further (5.2%).

Heat from solid fuelled equipment (13.8%) categorises incidents where the form of heat of ignition was either heat, sparks, flame or embers coming from any equipment that uses solid fuel (typically wood, paper, or coal).

Electrical arcing or being overloaded (11.6%) include instances where water, mechanical damage, and worn insulation have caused a short-circuit arc which has produced heat and ignited surrounding material. Heat from overloaded equipment includes instances where electric motors and wiring have heated to an extent to ignite nearby material.

Heat from gas or liquid fuelled equipment (4.7%) categorises incidents where heat, sparks, flame, or embers from any equipment which uses these fuel types is the source of the heat of ignition.

Outside open fires (3.0%) may be of the form of fires for cooking, burning garden waste, bonfires, or clearing agricultural property. The mechanism of ignition from these fires may either be from a spark, heat, flame or ember.

The 'other' category (26.0%) in Figure 4-3, is mainly made up of instances where there was insufficient information to classify the form of heat of ignition further (24.1%). The category also includes sections that take into account explosions, fireworks, exposure fires, and natural sources like lightning and the suns heat.

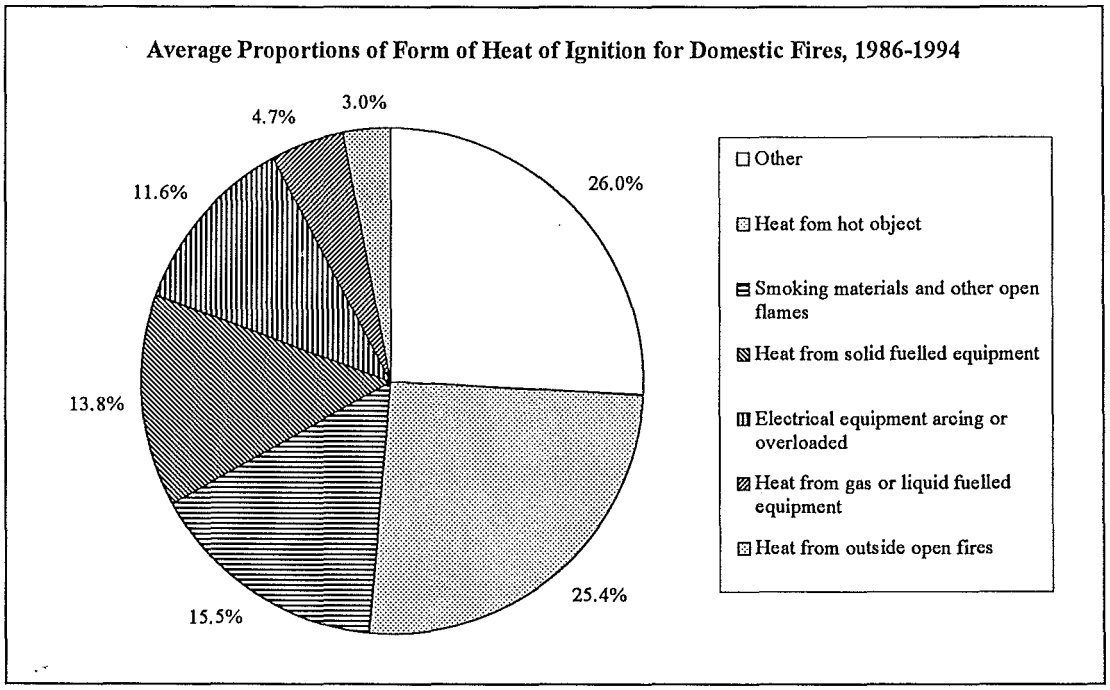



**Figure 4-3: Proportion of forms of heat of ignition for domestic fires over the years 1986-1994.**

### 4.2.4 Material Type Ignited

The type of material ignited identifies the material composition of the first item ignited that has sufficient volume or heat intensity to extend to self perpetuating or uncontrolled fire (NFPA, 1995).

The recording of this field from 1986 to 1990 appears to not have been that spectacular, as there are a lot of zero entries over these years in the FIRS database. This indicates that on numerous occasions this field was left blank on the original incident forms. The zero coding may also stand for a vegetation-naturally occurring material, which has a coding of 000. But the way the FIRS database was transferred to Microsoft Access the place holders were lost, so any figure like this appears as a single digit, with no zeros before the number. The section called null recording in Figure 4-4 accounts for all the zero entries over the years 1986 to 1994 (15.5%).

Sawn wood (13.7%) includes all finished timber products, and is the leading type of material ignited.

Fabric, textiles, and fur (11.3%) is the second most frequent type of material, and includes man-made fabric and fibre finished goods (3.9%), cotton, rayon, or cotton fabric finished goods (3.6%), and wool or wool mixed finished goods (2.1%).

Plastics (8.7%) include: rigid plastics such as PVC and perspex (2.8%); flexible plastics used for electrical insulation (1.7%); flexible polyurethane foam found in furnishings, upholstery and mattresses (0.3%); and other plastics such as film and rigid foam. It was surprising to see that flexible polyurethane foam was involved in so few incidents. However on looking at upholstered furniture in the material form field it was discovered that in the majority of incidents the material type was recorded as man-made fabric and cotton, instead of polyurethane foam.

Fat and grease (food) (7.7%) includes materials such as butter, margarine and lard. Typically these types of materials are associated with stove top and oven fires.

Other material types shown in Figure 4-4 are: coal and coke (7.4%) as used in solid fuel burners; paper and cardboard (4.4%) such as magazines, newspapers and cartons; combustible liquid with a flash point less than 61°C (4.3%) such as cooking oil; soot in the flue of the chimney (4.1%); and food and starch (2.8%) excluding fat and grease.

The 'other' category includes all the other remaining material types as listed in Tables B-9 and B-10 in Appendix B.

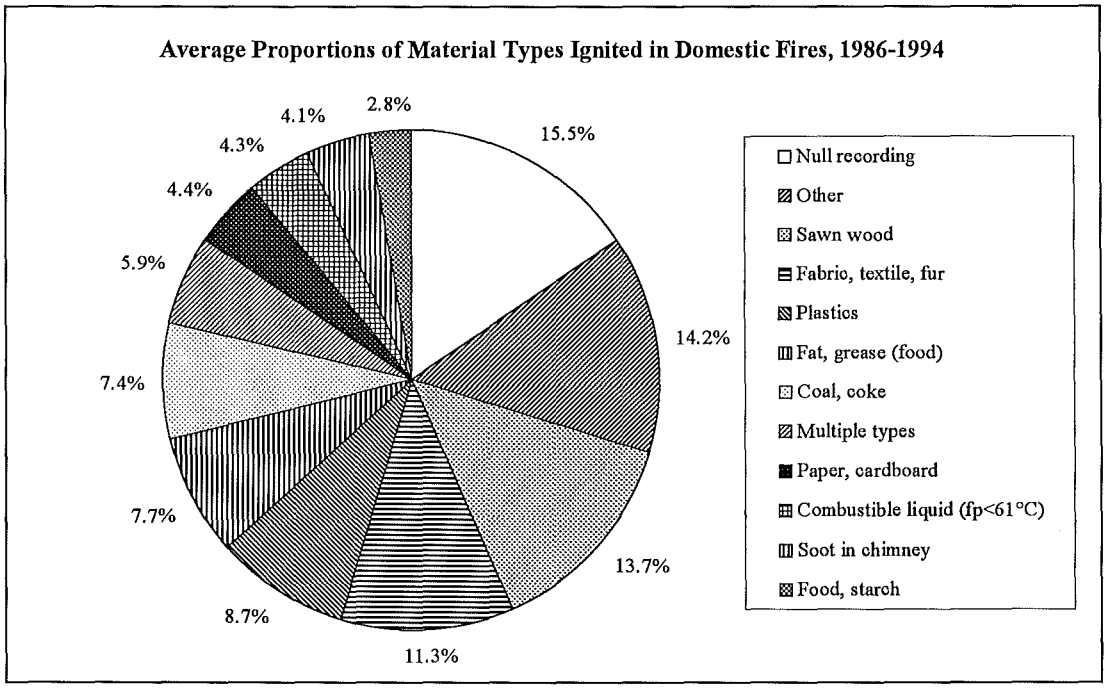



**Figure 4-4: Proportion of material types ignited in domestic fires over the years 1986-1994.**

### 4.2.5 Form of Material Ignited

The form of material ignited identifies the use of the first item ignited that has sufficient volume or heat intensity to extend to self perpetuating or uncontrolled fire (NFPA, 1995).

The leading category of material forms ignited are structural components or finishes (15.0%). The three main sub-categories making up this category are: structural members or framing (4.7%); exterior sidewall surfaces (2.9%); and interior wall coverings (2.7%).

Cooking materials (13.9%) feature highly and are typically the material ignited in kitchen fires.

Soft goods and wearing apparel (10.4%) features items such as bedding (4.7%), mattresses and pillows (2.0%), clothing not on a person (1.7%), and curtains and drapery (1.0%).

Making up the remainder of Figure 4-5 are categories rubbish and garden waste (8.0%), dust, fibre or lint (5.5%), electrical wiring or cable insulation (5.5%), film or residue (4.9%), furniture and utensils (3.9%), fuel (2.6%) and an 'other' category (30.3%). Film or residue includes all types of films or residues produced as a by-product of an operation. The most common residue is soot build-up in chimney flues.

A detailed table of the forms of material ignited by the number of times they were involved is given in Tables B-11 and B-12.

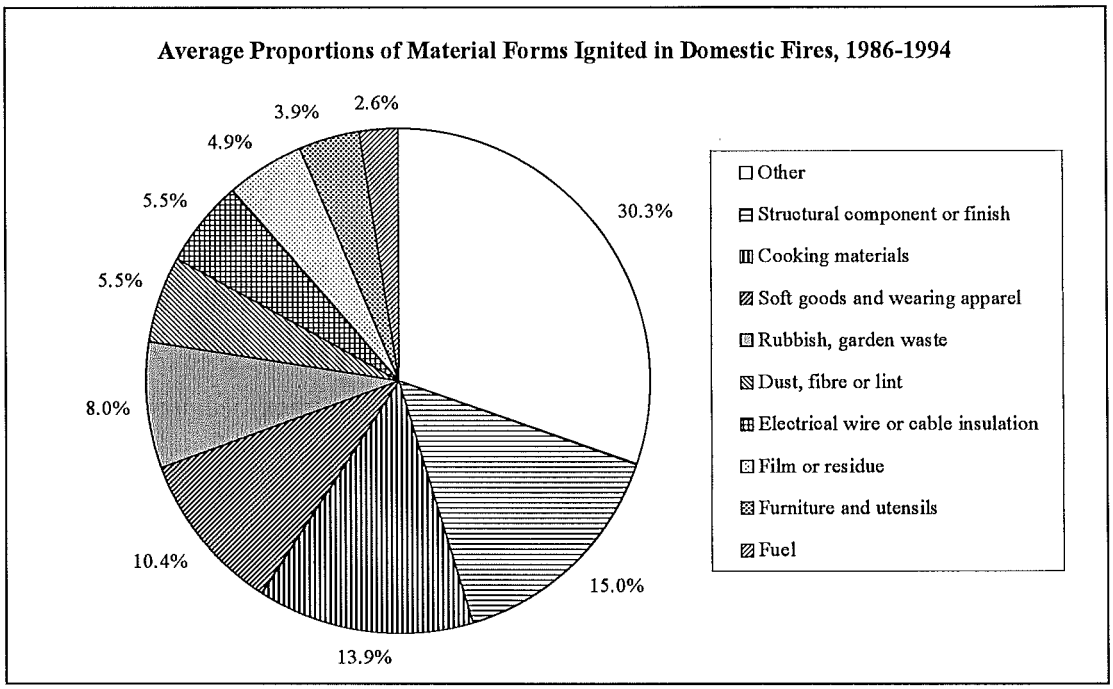



**Figure 4-5: Proportion of material forms ignited in domestic fires over the years 1986-1994.**

### 4.2.6 Ignition Factors

The ignition factor describes the cause of the fire, ie it identifies how the heat of ignition and the material first ignited combined to start a fire. It can be a deliberate act, an accident, or an act of nature (NFPA, 1995).

The leading cause of ignition over the period 1986 to 1994 inclusive for domestic fires was operational deficiency (13.1%). This category includes all instances where equipment was misused, whether or not it was moved. The leading sub category has been entered separately in as equipment unattended (8.1%). Otherwise the main sub-categories of this category were failure to clean (6.3%), equipment accidentally turned on or not turned off (1.9%), and cases where there was insufficient information to classify further (3.5%).

Mechanical failure (13.0%) includes instances where the equipment is stationary and fails for some reason (New Zealand Fire Service Commission, 1992). The main sub-categories are instances where electrical equipment has short circuited (3.3%) or failed due to some other fault (2.5%), or where equipment has worn out due to a lack of maintenance (4.2%).

The category misuse of heat of ignition includes instances where the source of the heat of ignition is moved and the material first ignited is stationary (New Zealand Fire Service Commission, 1992). In this category the sub-categories heat source placed too close to combustibles, children playing with heat sources, and abandoned heat sources are included. These however have been grouped separately in Figure 4-6.

The remaining sub-categories making up the misuse of heat of ignition section in Figure 4-6 include incidences where: there was deemed to be insufficient information to classify further (2.2%); occupants fell asleep (1.4%), which includes instances where fire results from smoking materials after a person smoking fell asleep; there was inadequate control of an open fire (1.2%); and where the occupant was impaired by drugs or alcohol (0.3%).

Incendiary fires (4.9%) are those that the reporting fire officer concludes to be deliberately set. The setting of such fires may be lawful or unlawful, and depends upon circumstances relevant under the law, such as, intent, ownership of property ignited, and the presence or absence of permission (New Zealand Fire Service Commission, 1992). Suspicious fires (2.2%) were most common, followed by fires where the lawfulness was not determined (1.3%) and arson (1.2%). There were also a few cases where the fires were concluded to be deliberately set, but no law was violated. Included in these instances are fires which are lit in a fire place but then spread to the structure of the property.

The section in Figure 4-6 called combustible and heat source too close (4.6%) includes sub-categories from two different categories. The categories in question are 'misuse of heat of ignition' (described above) and 'misuse of material ignited'. The latter category is for instances where the heat of ignition is stationary and the material first ignited was moved. The two sub-categories that were combined were 'heat source placed too close to combustibles', and 'combustible placed too close to heat source'. The distinction between the two can be confusing and is not all that different, thus they have been combined.

Design, installation deficiency (4.0%) includes instances where it was deemed that the design, installation of, or the construction of equipment was at fault and led to the ignition of the fire. The leading sub-category was installation deficiency (2.8%) and takes into account such factors as improper installation of stove pipes, and the installation of the equipment too close to interior finishes and structural items.

The children playing category (3.5%) describes instances where children play with heat sources or combustibles and have no idea that fire can cause damage. The FIRS database has two sub-categories of this behaviour. The first sub-category identifies children playing with the initial heat source, while the second sub-category identifies children playing with the fuel source (combustibles). The differentiation between these two sub-categories is not very distinct, and it is often the case that when the cause has

been categorised as 'children playing with combustibles' the heat source involved is one of the ones commonly found in the sub-category 'children playing with heat sources'. It therefore seems logical and easier to group the two sub-categories together.

Abandoned heat source (3.5%) as mentioned earlier is a sub-category of misuse of heat of ignition. It includes all instances where cigarettes, cigars, tobacco embers, hot ashes, and other burning matter are discarded in a manner that provides heat to ignite other material. Excluded form this sub-category are instances where the person falls asleep or are impaired by drugs or alcohol, or are impaired in some other way.

The 'other' category in Figure 4-6 groups all the other ignition factors in tables B-6 and B-7 in Appendix B.

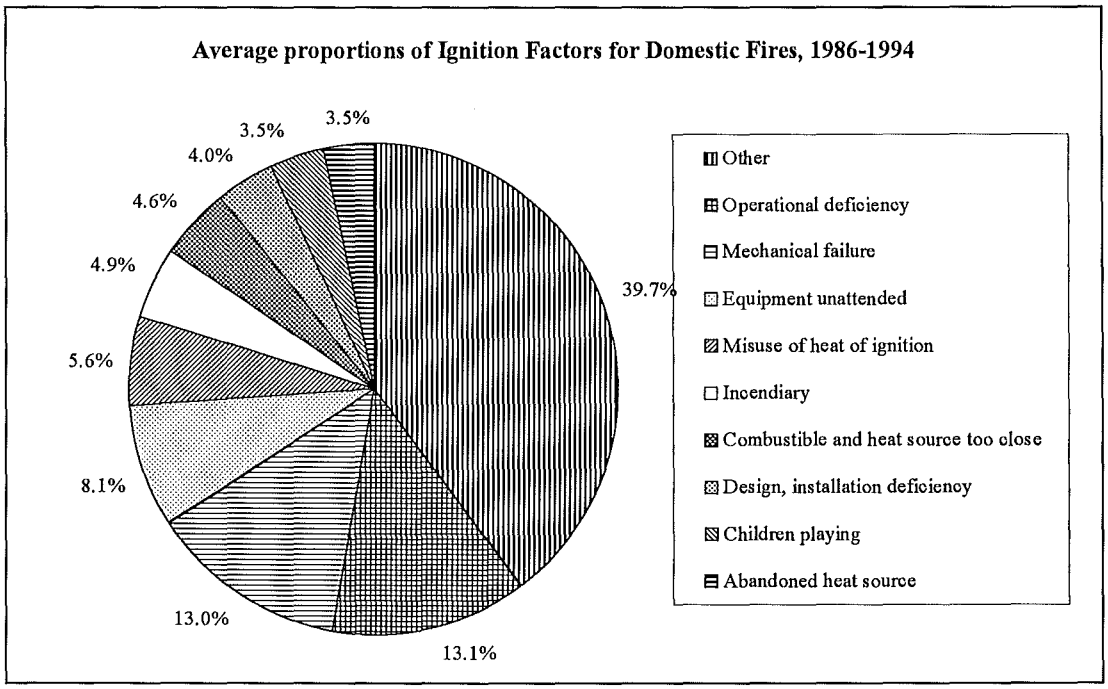



**Figure 4-6: Proportion of ignition factors for domestic fires over the years 1986-1994.**

# 5. Fire Casualties

## 5.1 Accuracy of the New Zealand Data

The New Zealand civilian fire death and injury values cited in this report may be slightly understated. This is because they are sourced from the FIRS database, which only contains details of the casualties that the New Zealand Fire Service is aware of, at the incidents they attend. Therefore injuries that occur at small fires, to which the Fire Service are non attendant go unrecorded. It is also possible for some injuries at fires the Fire Service attends to go unrecorded, especially if the person has left the scene prior to the Fire Service's arrival. Some fatalities can also go unrecorded if a person injured in the fire later dies due to their injuries. The Fire Service does try to keep track of seriously injured people and updates its database records if the person later dies. However this methodology can not be relied on to a high degree of accuracy.

At present the New Zealand Fire Service Management of Fire and Other Risks (MOFOR) project have been researching fire deaths and injuries including correlation between the New Zealand FIRS data and the Ministry of Health (MOH) data. The MOH keep both a fire death and fire injury database, which is more accurate than the FIRS database. It is more accurate as it records the victims date of birth and date of injury or death. The MOH database also incorporates fire deaths that occur after the fire incident and those which occur at incidents the Fire Service is not called to (eg some fire suicides, or clothing fires where the building or property does not catch alight, only the person does). In July 1988 a new database for deaths and injuries for FIRS will hopefully be operational and this will incorporate the MOH database.

## 5.2 Number of Fire Casualties

Fire incidents over the period 1986 to 1994 caused a total of 292 fatalities and 1701 injuries to civilians. The number of fatalities occurring each year ranged between 21 in 1991 to 42 in 1988. The number of injuries each year ranged between 152 in both 1986 and 1988 to 271 in 1994. Figure 5-1 shows the variation in deaths and injuries caused by fire over the years 1986 to 1994. The number of fatalities remained reasonably constant over the nine year period, with there being a slight decrease over the years 1990 and 1991. The number of injuries however fluctuated with a marginal increase between 1986 and 1992, before increasing substantially after 1992.

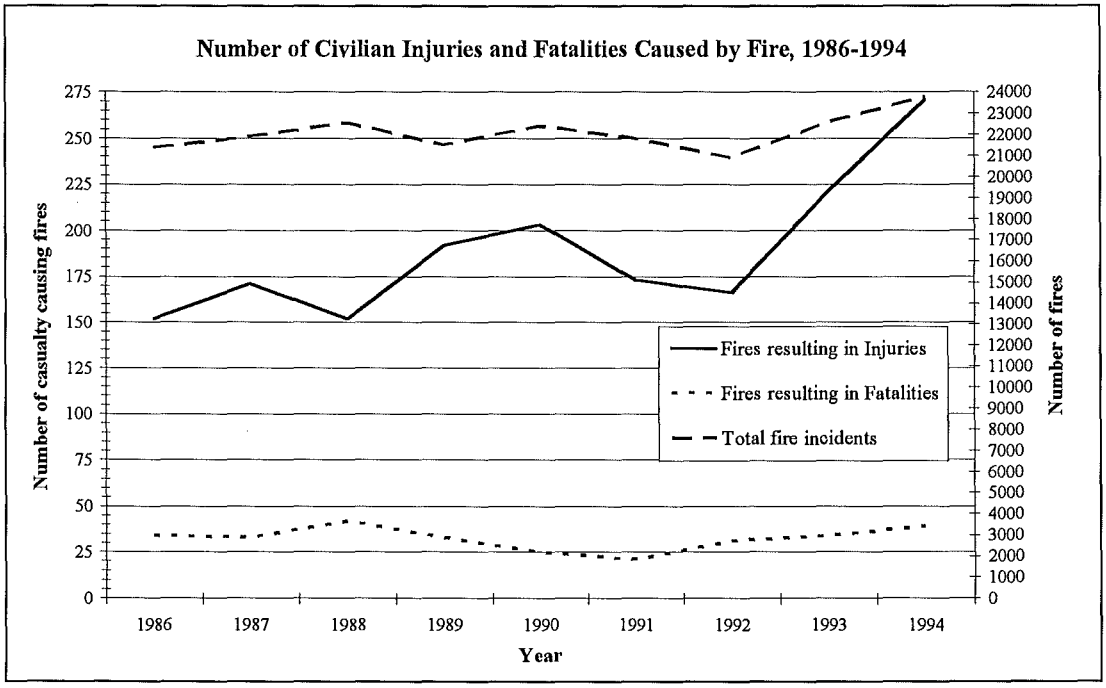



**Figure 5-1: Number of deaths and injuries caused by fire and the total number of fires over the years 1986 to 1994.**

The main reason for the increase in injuries is possibly due to the Fire Service having a greater awareness of the dangers of smoke inhalation. This results in people that only experience mild smoke exposures being given treatment and hence qualifying for entry in the injury section of the FIRS database. In the past these people may not have been

given treatment, and therefore would not have been documented as receiving an injury.

Table 5-1 gives the breakdown of injuries and fatalities received from fire incidents during the years 1986 to 1994. The term service personal refers to members of the fire service, the police, ambulance officers, and any other services that were called to the scene. The majority of the injuries received to service personal are to fire fighters.

**Table 5-1: Number of fire casualties occurring each year to civilians and service personal, 1986-1994.**

| Type of casualty | Year | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | |
| Civilian Injury | 152 | 171 | 152 | 192 | 203 | 173 | 166 | 221 | 271 | 1701 |
| Civilian Fatality | 34 | 33 | 42 | 33 | 25 | 21 | 31 | 34 | 39 | 292 |
| Service Injury | 188 | 132 | 174 | 142 | 152 | 128 | 143 | 316 | 233 | 1608 |
| Service Fatality | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total Injury | 340 | 303 | 326 | 334 | 355 | 301 | 309 | 537 | 504 | 3309 |
| Total Fatality | 34 | 33 | 44 | 33 | 25 | 21 | 31 | 34 | 39 | 294 |

## 5.3 Nature of Injuries

Figure 5-2 gives a breakdown of the nature of injuries civilians received from fires each year between 1986 and 1994. In this figure it can be observed that the number of cases of 'asphyxia/smoke only' has increased substantially over the nine year period. The instances of 'burns and asphyxia/smoke' have also increased slightly, except for the large drop in 1992. The cases of 'burns only', has fluctuated over the years reducing in frequency between 1988 and 1993, before increasing in 1994.

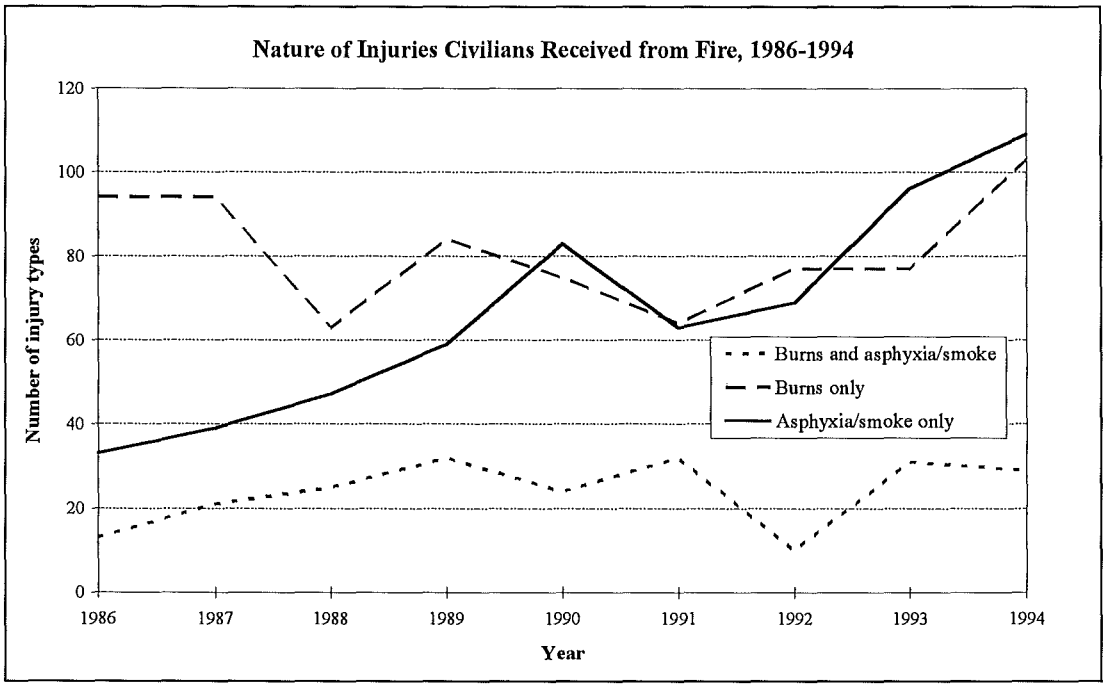



**Figure 5-2: Nature of injuries civilians suffered due to fire over the years 1986 to 1994.**

## 5.4 Fire Death Rate per million population

The number of deaths and injuries averaged over the nine year period (1986-1994) indicates that 32 deaths and 189 injuries occur each year due to fire incidents. The corresponding civilian fire death rate has been calculated as 9.6 deaths per million of population. This is using the 1991 New Zealand Census figure of 3373926 people (Department of Statistics). Comparing this fire death rate with overseas countries listed in Table 5-2 it can be observed that New Zealand has a reasonably low fire death rate, but it can improve notably when compared with Switzerland.

**Table 5-2: Fire death rates per million population in various countries.**

| Country | Fire Death Rate per million population (pmp) |
|---|---|
| Finland[1] | 22.7 |
| USA [2] | 22.3 |
| Canada [2] | 19.0 |
| Japan [3] | 15.6 |
| Denmark [1] | 14.9 |
| United Kingdom [4] | 14.0 |
| Sweden [5] | 13.8 |
| New Zealand | 9.6 |
| Spain [1] | 8.6 |
| Australia [6] | 8.0 |
| Austria [1] | 6.9 |
| Netherlands [1] | 5.9 |
| Switzerland [1] | 4.2 |

Notes to Table 5-2:

[1] From a table in WFSC, 1995 that presents deaths per 100, 000 persons over the years 1989 to 1991.

[2] Fire death rate is averaged over the years 1984-1992. The rate has been dropping for both countries. In the USA the fire death rate was 18.7 pmp in 1992, and in Canada it was 14.0 pmp in 1992. The figures used exclude fire fighter deaths at fires. (Hall, 1995a)

[3] Fire death rate is averaged over the years 1984-1991. The rate has been reasonably constant over this time period. The figures used exclude fire fighter deaths at fires. (Hall, 1994b)

[4] Fire death rate is averaged over the years 1984-1993. The rate has been dropping slightly over the years, and was at 12.4 in 1993. The figures used included fire fighter deaths at fires. (Hall, 1995b)

[5] Fire death rate is averaged over the years 1984-1994. The rate has been reasonably constant over this time period. The figures used included fire fighter deaths at fires. (Hall, 1996b)

[6] Fire death rate is as given in Beck *et al*, 1989 and is based on the years 1984 to 1987.

## 5.5 Location of Casualties

A breakdown of fire locations is given in the next two subsections to give an insight into where the fire injuries and deaths are occurring. The analysis places the fires in various locations dependant on the incident type code, the fixed property use code and the mobile property code.

### 5.5.1 Fire Fatalities

The majority of fire fatalities that occur in New Zealand arise from domestic fires. Over the period 1986 to 1994 a total of 170 fatalities or an average of 19 fatalities a year were caused by domestic fires. In the same period 57 people or an average of 6 people a year died in motor vehicle fires (includes motor cars, all terrain vehicles, buses, trucks and motor homes). Hotels, Motels, Lodges and Boarding House fires accounted for a total of 24 fatalities in the same nine year period. Table 5-3 lists the number of fire fatalities that occurred in various locations between the years 1986 and 1994 inclusive. Note that the figure for domestic structures in Table 5-3 is greater than 170. This is because this figure includes three miscellaneous fire incidents which occurred outside domestic property and a chemical fire incident that occurred in a domestic property (all four of these incidents are not included in domestic fire fatality figures quoted elsewhere in the report as chemical, vegetation and miscellaneous fires were not considered in the definition of a domestic fire).

**Table 5-3: Number of fire fatalities that occurred in various locations between the years 1986 and 1994 inclusive.**

| Location | Total Fire Fatalities 1986-1994 |
|---|---|
| Clubs | 3 |
| Care of the aged facility | 8 |
| Care of the mentally handicapped facility | 1 |
| Prisons | 1 |
| Domestic structures | 174 |
| Hotels, Motels, Lodges and Boarding Houses | 24 |
| Motor vehicle service property | 1 |
| Offices | 1 |
| Manufacturing property | 2 |
| Agricultural property | 1 |
| Storage property | 5 |
| Motor vehicles | 57 |
| Caravans | 6 |
| Boats | 4 |
| Aircraft | 1 |
| Forest | 1 |

Notes to Table 5-3

Incidents that were classified as 'vegetation fires', 'fires involving chemicals, flammable liquids and gases' and 'miscellaneous fires' have been included in the location figures as appropriate.

### 5.5.2 Fire Injuries

The leading location of fire injuries is in domestic structures. In the nine years from 1986 to 1994 there were a total of 1115 injuries or an average of 124 injuries a year caused by domestic fires. Note that the figure quoted in Table 5-4 is greater than 1115 as this figure includes vegetation, chemical and miscellaneous fires that occurred outside domestic structures. Refer to Table 5-4 for the location of other injury causing fires.

**Table 5-4: Number of fire injuries that occurred in various locations between the years 1986 and 1994 inclusive.**

| Location | Total Fire Injuries 1986-1994 |
|---|---|
| Assembly properties | 24 |
| Health Care facilities | 39 |
| Schools | 8 |
| Prisons | 6 |
| Domestic structures | 1177 |
| Hotels, Motels, Lodges and Boarding Houses | 39 |
| Unclassified Residential properties | 16 |
| Offices | 11 |
| Motor vehicle sales and service properties | 29 |
| Shops and department stores | 37 |
| Utility and defence facilities | 8 |
| Basic Industrial properties | 19 |
| Manufacturing properties | 40 |
| Storage properties | 50 |
| Special fixed properties | 10 |
| Motor vehicles | 115 |
| Caravans | 18 |
| Boats | 14 |
| Aircraft | 2 |
| Trains | 1 |
| Heavy Industrial and Agricultural equipment | 4 |
| Agricultural crops and grass | 10 |
| Forests | 1 |
| Playgrounds, campsites and vacant sections | 12 |
| Street or roadside | 11 |

Notes to Table 5-4:

Incidents that were classified as 'vegetation fires', 'fires involving chemicals, flammable liquids and gases' and 'miscellaneous fires' have been included in the location figures as appropriate.

# 6. Domestic Fire Casualties

## 6.1 Number of Casualties

Domestic fires between the years 1986 and 1994 inclusive, resulted in a total of 1115 civilian injuries and 170 civilian fatalities. This is an average of 124 injuries and 19 deaths each year. Table 6-1 gives the number of injuries and fatalities civilians and service personnel received each year from 1986 to 1994 inclusive.

**Table 6-1: Number of domestic fire casualties that occurred to civilians and service personnel, 1986-1994.**

| Type of casualty | Year | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | |
| Civilian Injury | 95 | 113 | 83 | 114 | 128 | 124 | 109 | 154 | 195 | 1115 |
| Civilian Fatality | 23 | 19 | 27 | 19 | 10 | 16 | 17 | 21 | 18 | 170 |
| Service Injury | 86 | 52 | 73 | 61 | 69 | 66 | 69 | 128 | 89 | 693 |
| Service Fatality | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Injury | 181 | 165 | 156 | 175 | 197 | 190 | 178 | 282 | 284 | 1808 |
| Total Fatality | 23 | 19 | 27 | 19 | 10 | 16 | 17 | 21 | 18 | 170 |

## 6.2 Features of the Fires and Casualties

### 6.2.1 Area of Fire Origin

Tables C-1 and C-2 in appendix C give the number of civilian injuries and fatalities occurring from domestic fires by area of fire origin.

### *6.2.1.1 Domestic Fires resulting in Injury*

The main areas where injury causing domestic fires originated were the kitchen (37.2%), the bedroom (30.8%), and the lounge (16.1%), as shown in Figure 6-1. The 'other' category includes null or erroneous entries (3.0%) and fires that start in structural areas (3.3%), wash house and laundry rooms (2.3%), garages and carports (2.0%), and other storage areas (1.7%).

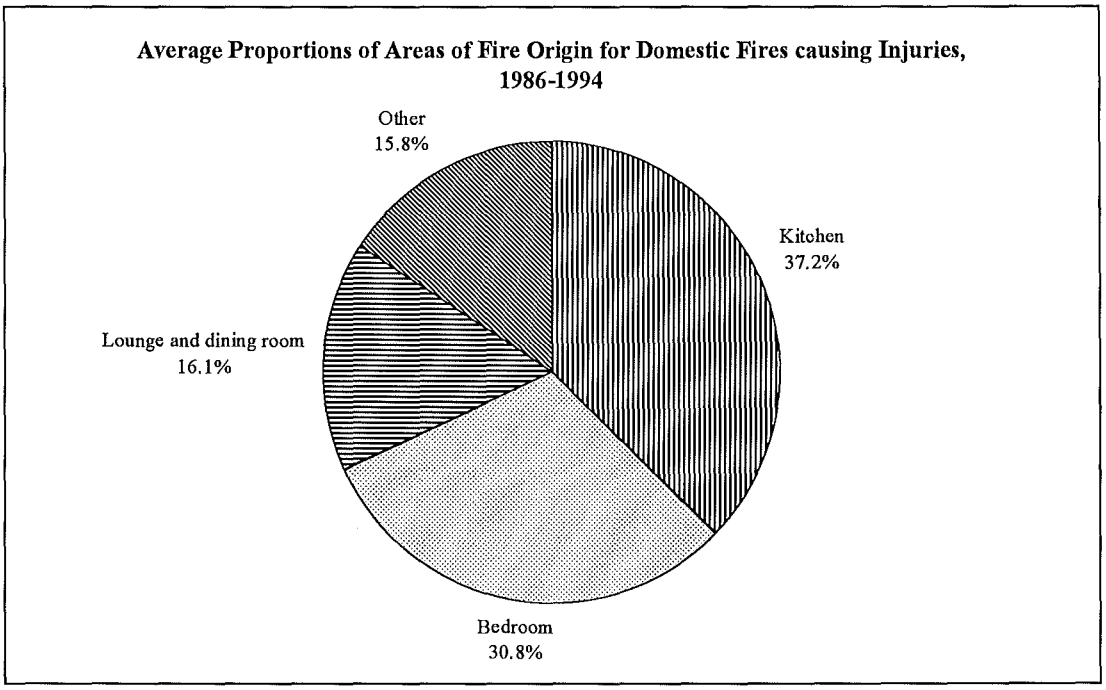



**Figure 6-1: Proportion of fire origin locations that contributed to a domestic fire which resulted in a casualty.**

### *6.2.1.2 Domestic Fires resulting in Death*

The leading areas of domestic fire origin that resulted in fatalities are again the kitchen, bedroom, and the lounge. But this time the order and magnitudes of the proportions are different, as shown in Figure 6-2.

Bedrooms are the leading area of fire origin for fatal domestic fires (38.2%), lounge and dining room fires are next (25.9%), closely followed by kitchen fires (24.1%). The 'other' category (11.8%) includes null or erroneous entries (2.9%) and fires that start in structural areas (3.5%), garages and carports (2.4%), and wash house and laundry rooms (1.2%).

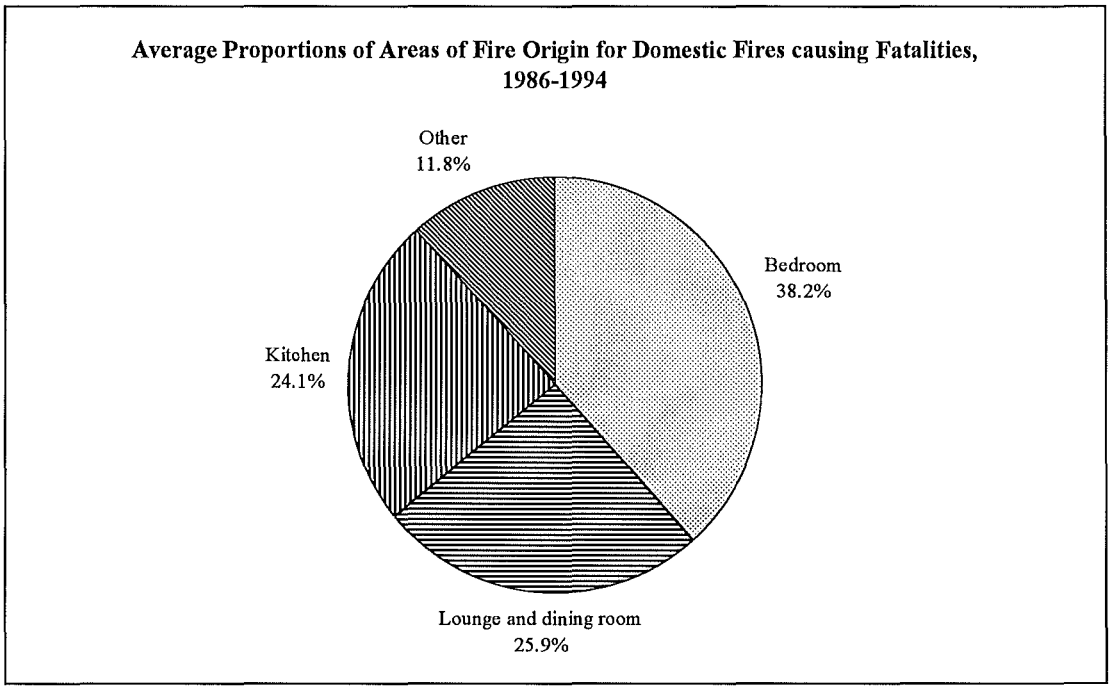



**Figure 6-2: Proportion of fire origin locations that contributed to a domestic fire which resulted in a fatality**

### 6.2.2 Equipment Involved in Ignition

Tables C-3 and C-4 give the number of civilian injuries and fatalities occurring from domestic fires by equipment involved in ignition.

#### *6.2.2.1 Domestic Fires resulting in Injury*

Over half the domestic fires that resulted in an injury had no equipment involved in the ignition (56.9%), as shown in Figure 6-3.

Ovens (11.4%) were the most common form of equipment, followed by stovetops (7.3%). Together these two types of equipment almost make up one fifth of this section.

Portable heaters (6.0%) cover all forms, such as electric fan, electric radiant bar, electric oil-filled column, LPG, and kerosene. In most cases however no distinction was made between heater types.

Completing the pie chart in Figure 6-3 are electric blankets (5.7%), electrical appliances (4.8%, excluding those that are used for food preparation and warming) and the 'other' category (7.9%) which includes all the other equipment not specified in Figure 6-3.

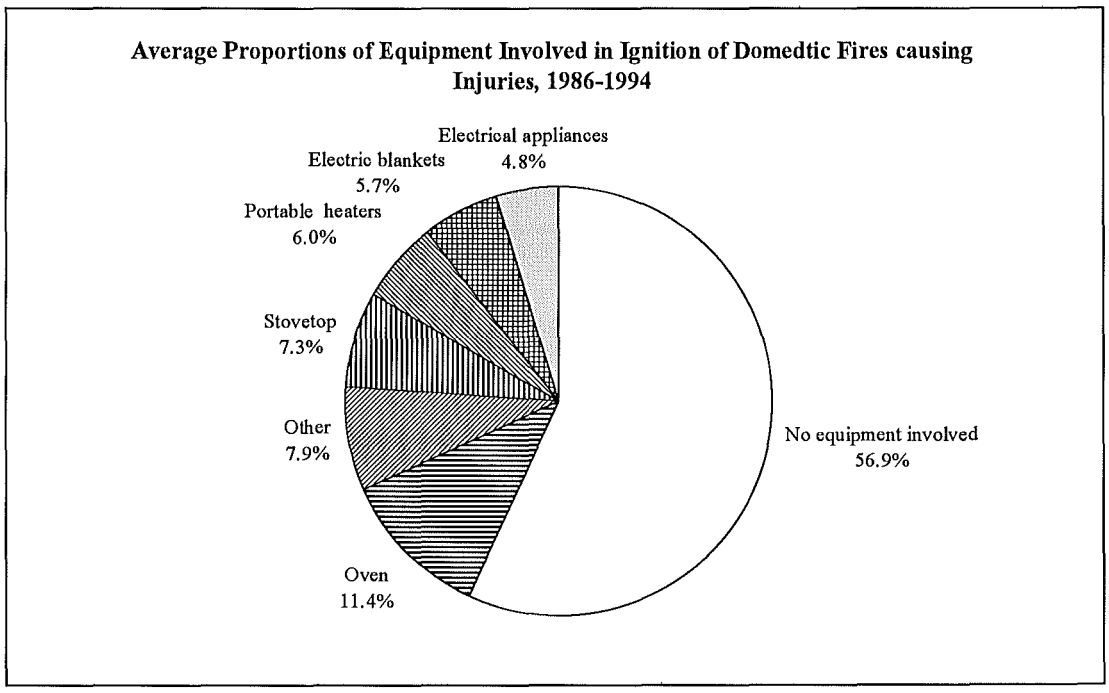



**Figure 6-3: Proportion of equipment involved in ignition that contributed to a domestic fire which resulted in an injury.**

### *6.2.2.2 Domestic Fires resulting in Death*

Well over half the domestic fires that resulted in fatalities had no equipment involved with their ignition (67.2%), as represented in Figure 6-4.

The main types of equipment involved in fatal domestic fires are the same as for injury causing domestic fires, except the order and magnitudes are slightly different. Portable heaters (10.0%) led, followed by ovens (5.9%), stovetops (4.7%), electrical appliances other than those used for food preparation or warming (4.1%), and electric blankets (3.5%).

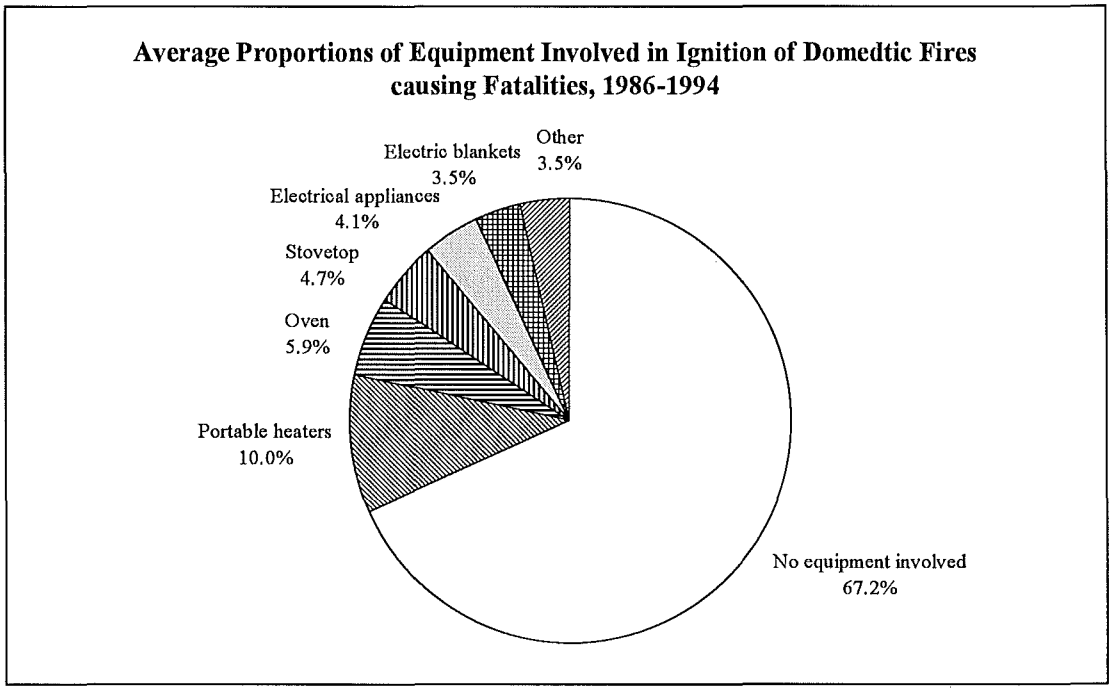



**Figure 6-4: Proportion of equipment involved in ignition that contributed to a domestic fire which resulted in a fatality.**

## 6.2.3 Form of Heat of Ignition

Tables C-5 and C-6 give the number of civilian injuries and fatalities occurring from domestic fires by form of heat of ignition.

### *6.2.3.1 Domestic Fires resulting in Injury*

Figure 6-5 shows the different forms of heat of ignition that resulted in a domestic fire causing injury.

The leading form of heat of ignition was heat from hot objects (40.0%). The major sub-category of this being heat from properly operating electrical equipment (32.6%).

Smoking materials and other open flames (27.2%) featured highly, with cigarettes being the highest occurring sub-category (9.6%), then matches (5.4%), lighters (5.2%), and candles (4.3%).

Electrical equipment arcing or being overloaded (11.1%) is made up mainly of instances where there was insufficient information to classify the form of heat of ignition any further (3.0%) and where electrical equipment experienced an unspecified arc (2.5%).

Completing Figure 6-5 are the sections: heat from gas or liquid fuelled equipment (4.9%), heat from solid fuelled equipment (3.1%), and an 'other' category (13.6%) which includes mainly instances of a zero recording in this field A zero entry either indicates there was insufficient information to make any sort of classification or the field was not recorded.

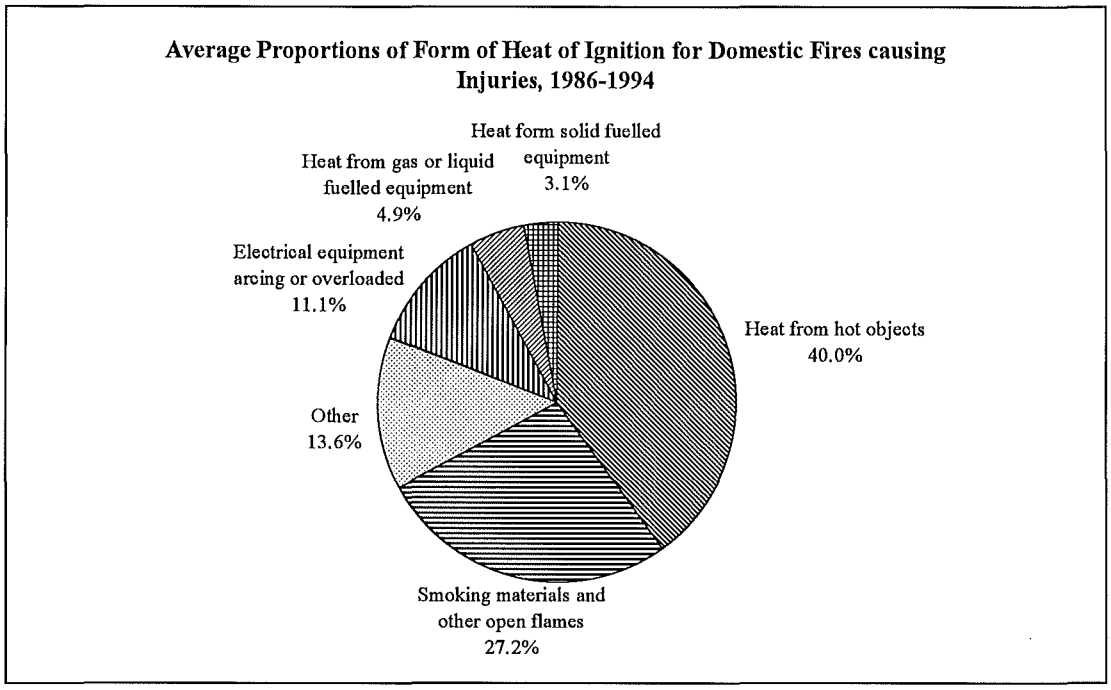



**Figure 6-5: Proportion of forms of heat of ignition causing domestic fires that resulted in an injury, 1986-1994.**

### *6.2.3.2 Domestic Fires resulting in Death*

The main proportion of heat of ignition for domestic fires that result in fatalities are smoking materials and other open flames (33.4%), as shown in Figure 6-6. Cigarettes were again the major sub-category (14.8%), followed by matches (6.5%), and candles (4.7%). Lighters however did not feature as significantly as they did in injury causing fires (1.2%).

Heat from hot objects (28.2%) is almost entirely made up of cases where electrical equipment operating correctly produced the heat that caused ignition (22.3%). The other sub-categories that contributed were heat from improperly operating electrical equipment and cases where there was insufficient information to classify further.

The other two specific categories shown in Figure 6-6 are electrical equipment arcing or being overloaded (5.9%) and heat from solid fuelled equipment (4.1%). The rest of

the pie chart is completed with the 'other' category. A large portion of this category is made up of zero entries.

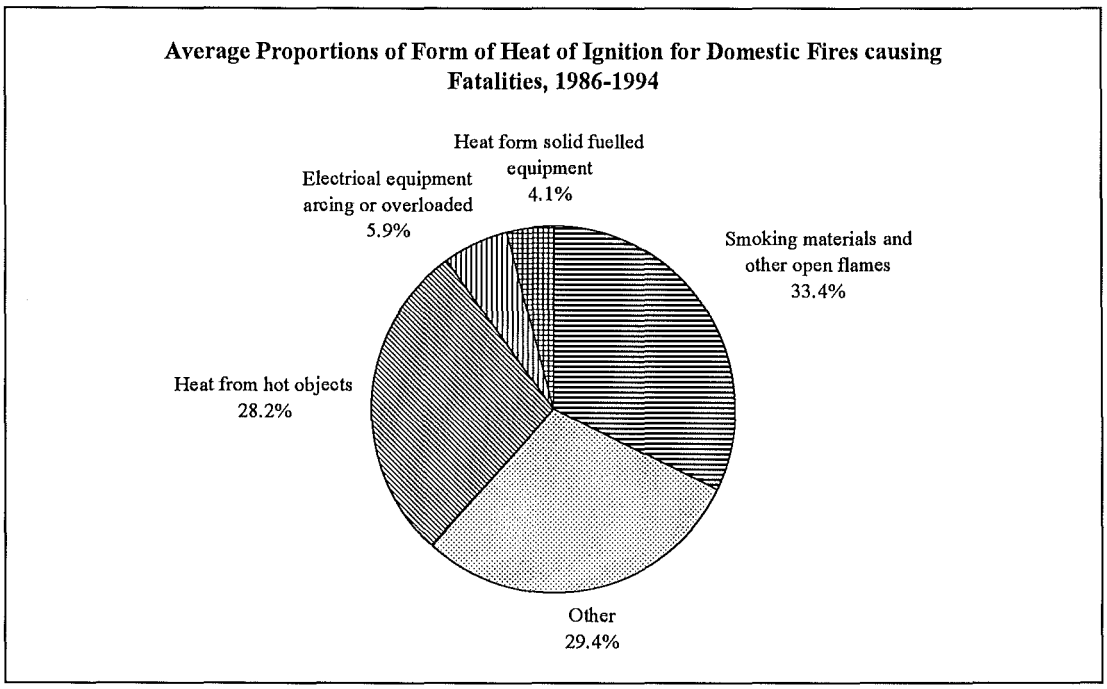



**Figure 6-6: Proportion of forms of heat of ignition causing domestic fires that resulted in a fatality, 1986-1994.**

### 6.2.4 Material Type Ignited

Tables C-7 and C-8 give the number of civilian injuries and fatalities occurring from domestic fires by material type ignited.

#### *6.2.4.1 Domestic Fires resulting in Injury*

The main material type which was ignited in domestic fires that resulted in injury were fabrics, textiles, and fur (28.7%). The majority of these were classified as man-made fabric or fibre finished goods (11.5%) and cotton, rayon, or cotton fabric finished goods (9.8%).

Fat and grease (food) (15.2%) and combustible liquids with a flash point less than 61°C were the next frequent material types ignited. These material types are both associated with cooking and as the kitchen is the most frequent area of origin for domestic fires resulting in injury, it is not surprising to see these material types featuring highly.

Plastics (7.6%) include all the various types as mentioned earlier in section 4.2.4. An interesting point to note is that flexible polyurethane foam does not feature in injury causing domestic fires.

Sawn wood (5.7%) and multiple types (5.6%) along with the 'other' category (26.5%) complete the pie chart in Figure 6-7.

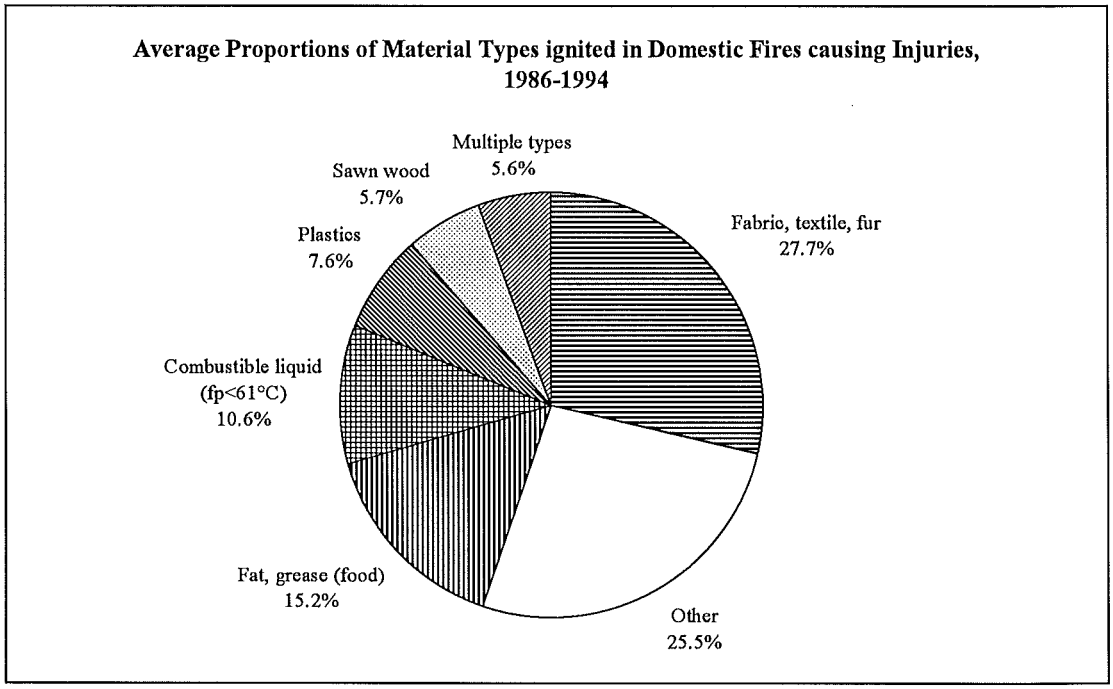



**Figure 6-7: Proportion of types of material initially ignited in domestic fires that resulted in an injury, 1986-1994.**

#### *6.2.4.2 Domestic Fires resulting in Death*

The main material type which was ignited in domestic fires that resulted in death were fabrics, textiles, and fur (31.8%), as shown in Figure 6-8. The majority of which were classified as man-made fabric or fibre finished goods (11.8%) and cotton, rayon, or cotton fabric finished goods (9.4%).

Multiple types (17.6%) and sawn wood (13.5%) were the next two frequent material types. Both these two sub-categories are a lot more frequent in death causing domestic fires than they were in those domestic fires that resulted in injury.

Petrol (5.9%) features prominently in domestic fires resulting in death because the person involved is usually intimate with the fire and may have possibly been trying to commit suicide.

Fat and grease (3.5%) and combustible liquids with a flash point less than 61°C (2.9%) feature a lot less frequently in domestic fires resulting in death than they do for injuries. This reflects the earlier findings that a higher percentage of people are injured in fires that originate in the kitchen than those that are killed.

The 'other' category (24.7%) completes the pie chart in Figure 6-8.

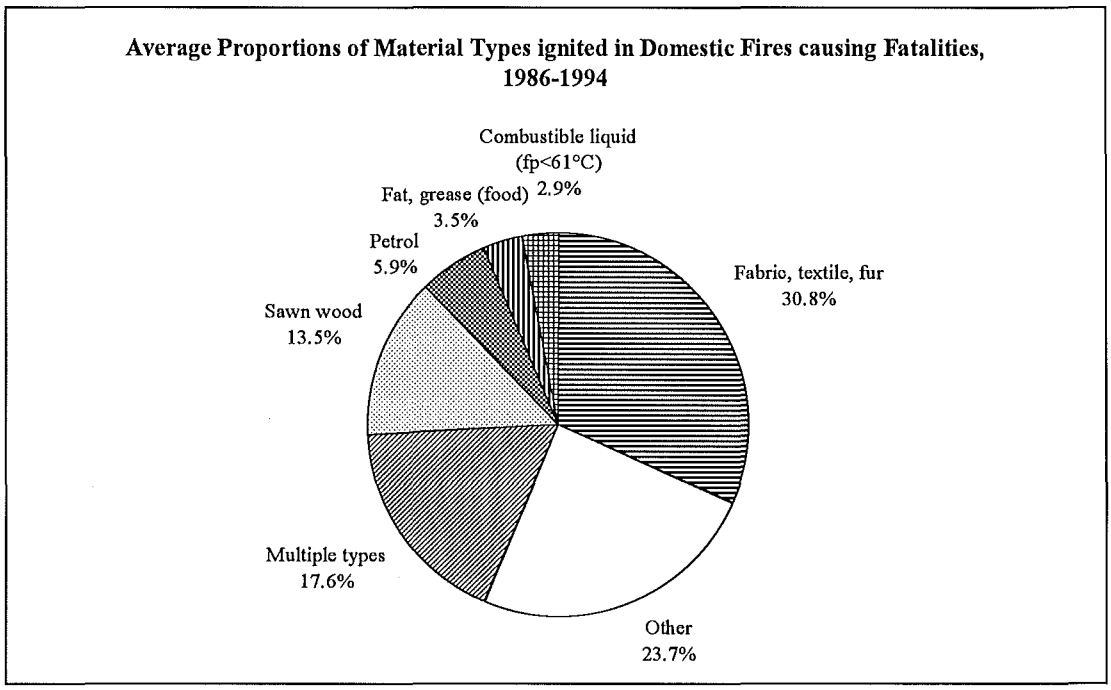



**Figure 6-8: Proportion of types of material initially ignited in domestic fires that resulted in a death, 1986-1994.**

### 6.2.5 Form of Material Ignited

Tables C-9 and C-10 give the number of civilian injuries and fatalities occurring from domestic fires by material type ignited.

#### *6.2.5.1 Domestic Fires resulting in Injury*

The main material forms ignited that resulted in a domestic fire injury were cooking materials (27.4%), as shown in Figure 6-9. This again follows from kitchen fires being the most common area of fire origin for domestic fires that result in injury.

Bedding fires (14.7%) include blankets, sheets, and heater pads. They are the form of material the majority of bedroom fires originate from. Mattresses and pillows (6.1%) also feature highly in the form of material ignited.

Structural components or finish (8.6%) material forms include areas such as, floor coverings (1.8%), interior wall coverings (2.4%), and structural framing (1.3%).

Fuel (5.6%) includes instances where flammable liquids or gases are in their final container prior to direct transfer into the engine or burner or piping associated with this final transfer (New Zealand Fire Service Commission, 1992).

Completing Figure 6-9 are upholstered furniture (5.0%) and the 'other' category (31.6%).

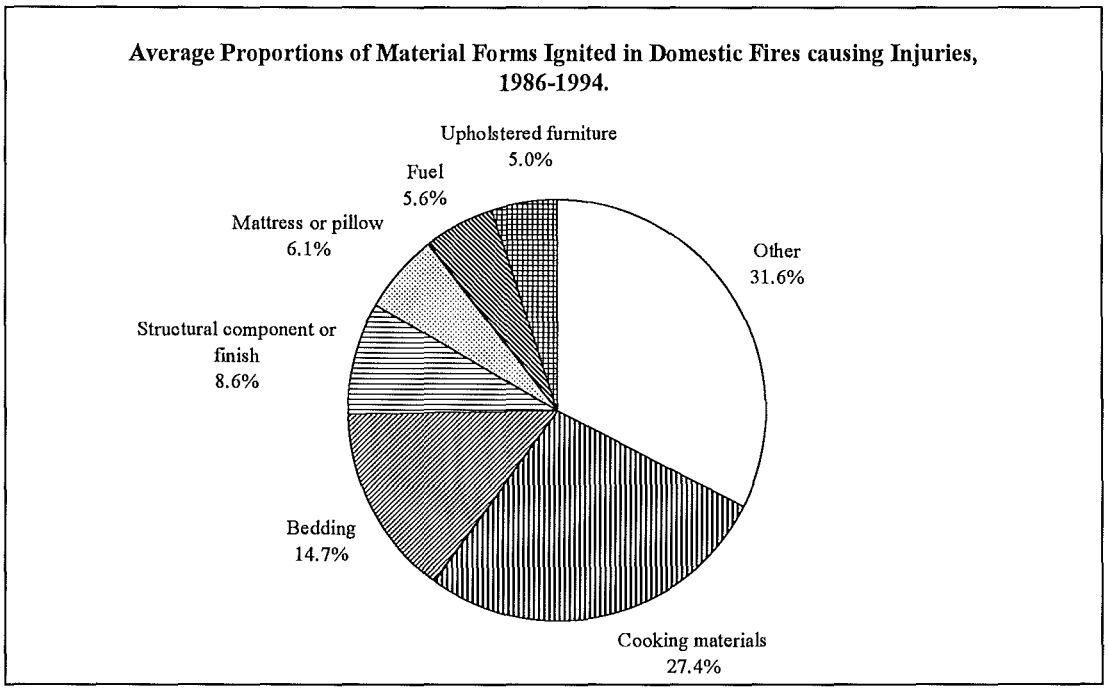



**Figure 6-9: Proportion of material forms initially ignited in domestic fires that resulted in an injury, 1986-1994.**

### *6.2.5.2 Domestic Fires resulting in Death*

Figure 6-10 shows the relative proportions of material forms that are first ignited in domestic fires that result in fatalities. All the segments are the same as described in the injury section above. However the proportions and order of magnitude are slightly

different. Bedding (17.6%) is the leading form, followed by structural components or finish (12.9%), cooking materials (10.6%), upholstered furniture (7.6%), fuel (5.3%), and mattresses or pillows (2.9%).

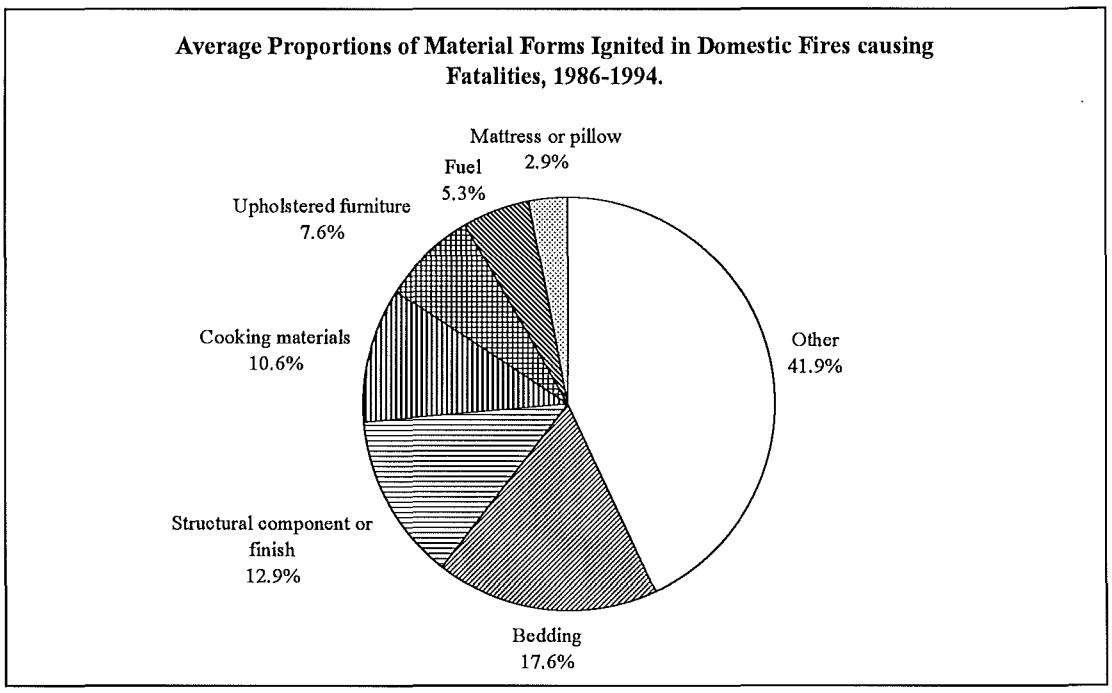



**Figure 6-10: Proportion of material forms initially ignited in domestic fires that resulted in a fatality, 1986-1994.**

## 6.2.6 Ignition Factor or Cause

Tables C-11 and C-12 give the number of civilian injuries and fatalities occurring from domestic fires by the ignition factor involved.

### *6.2.6.1 Domestic Fires resulting in Injury*

Figure 6-11 gives a breakdown of the different categories of ignition factors that started domestic fires which resulted in injury. The most common ignition factor over the years 1986 to 1994 is leaving equipment unattended (19.4%). Falling asleep,

which includes fires that result from smoking materials after a person smoking falls asleep, is the second largest cause (10.4%).

The category 'misuse of heat of ignition' includes cases where: people were impaired by drugs or alcohol (2.2%); the heat source used (eg candles used for lighting, welding and cutting operations) was placed too close to combustibles (2.1%); and cases where insufficient information was obtained to classify further (3.8%).

The 'children playing' category (9.1%) includes incidents of fires resulting from children playing and having no idea that fire can do damage. It again combines the two different FIRS sub-categories as describe in 4.2.6.

The main sub-categories making up the mechanical failure category (9.1%) includes instances where electrical equipment has short circuited (2.8%), or failed due to other reasons (2.1%), or where equipment has suffered from a part failure, leak or break (1.8%).

The 'operational deficiency' category (8.4%) is largely made up of cases where equipment was accidentally turned on or not turned off (3.5%), and incidents where it was recorded that there was insufficient information to classify further (2.0%).

Abandoned heat sources (7.5%) include discarded cigarettes, cigars, tobacco embers, hot ashes, and other burning matter. It does not include smoking materials abandoned if asleep, impairment by drugs or alcohol, or other impairments.

The 'other' category (27.1%) includes all other ignition factor categories. Some larger contributing areas are: instances of misuse of material ignited, such as spilled flammable liquids or gases (2.2%) and using flammable liquids to kindle a fire (1.1%); incendiary fires, which includes cases where arson was established (1.3%) and suspicious fires (2.5%); design, construction and installation deficiencies of equipment like chimneys and flues (2.1%); and cases where it was recorded as there being insufficient information to classify further (5.4%).

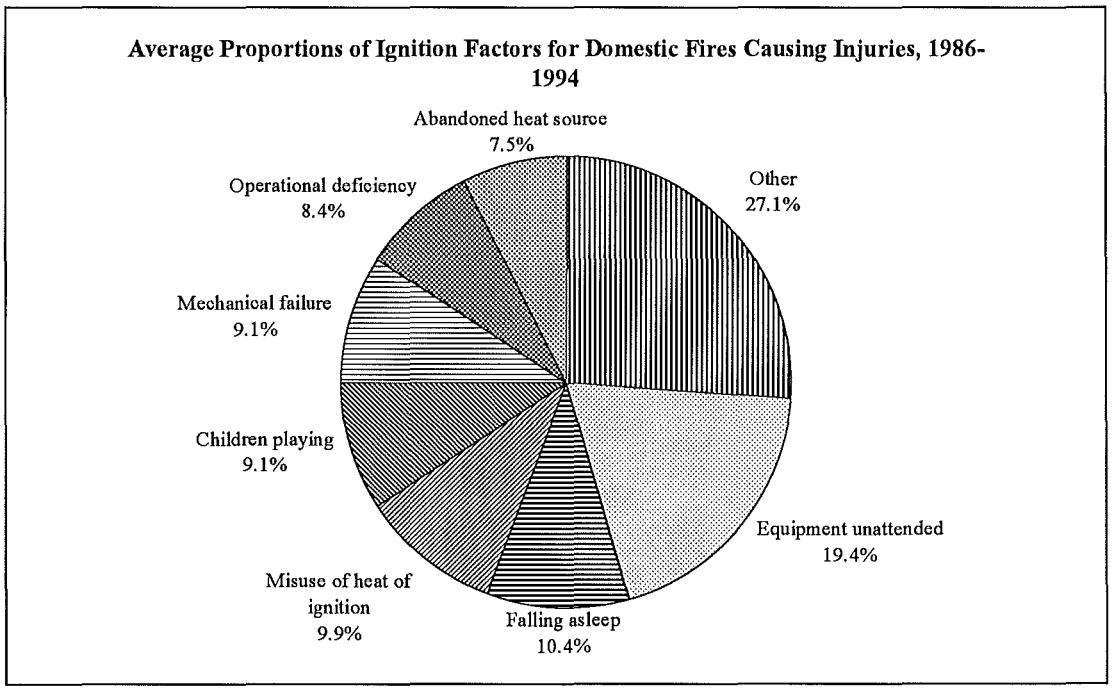



**Figure 6-11: Proportion of each type of ignition factor that started a fire which resulted in an injury.**

### *6.2.6.2 Domestic Fires resulting in Death*

Falling asleep (14.1%) was the leading ignition factor that led to a domestic fire that resulted in a fatality in the period 1986 to 1994 inclusive. This was followed by abandoned heat sources (12.9%) and equipment being misused (operational deficiency (12.9%)). The main cases in the operational deficiency category were cases where the equipment was accidentally turned on or not turned off (2.9%), and incidents where it was recorded that there was insufficient information to classify further (3.5%).

The 'misuse of heat of ignition' category (11.8%) includes mainly cases where it was recorded that there was insufficient information to classify further (5.3%), and instances of the victim being impaired by drugs and/or alcohol (2.9%).

Arson cases did not account for any domestic fires that resulted in a fatality. The incendiary category (8.2%) is solely made up from cases where the lawfulness of the incident was not determined (5.9%) and suspicious fires (2.3%).

Leaving equipment unattended (5.3%) resulted in a much smaller proportion of fatalities, as it did for injuries.

The 'other' category (29.2%) includes all other ignition factor categories. The largest contributing category are cases where it was recorded that there was insufficient information to classify further (18.8%). Cases of design, construction, or installation deficiency (4.1%) and equipment being accidentally turned on or not turned off (2.9%) were the next highest contributors.

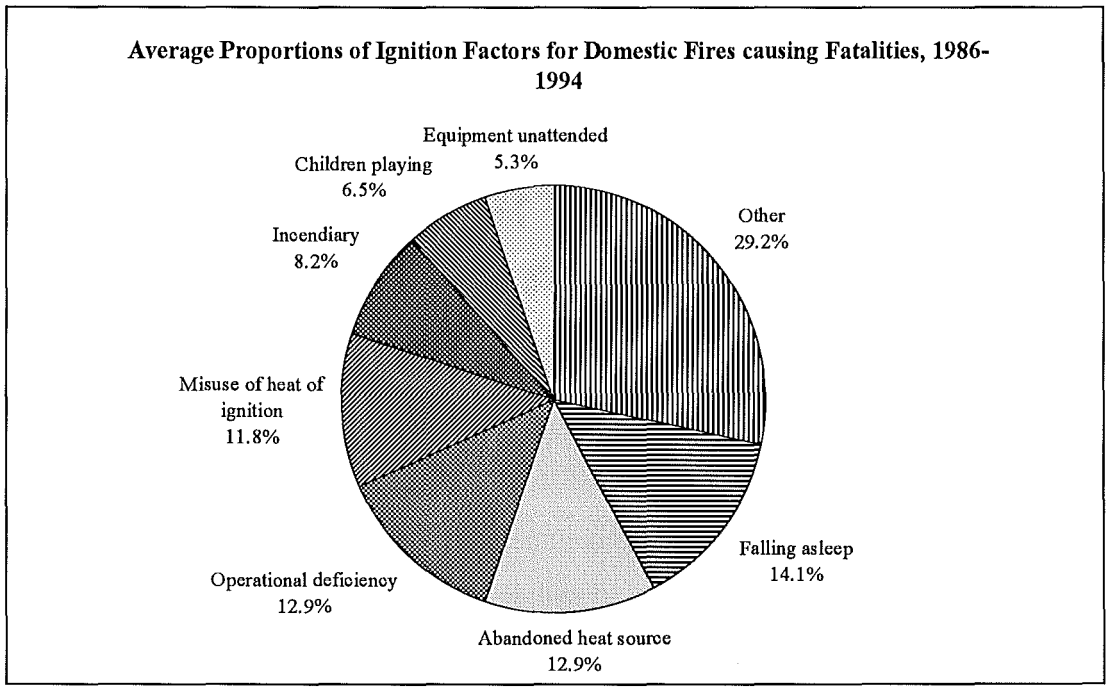



**Figure 6-12: Proportion of each type of ignition factor that started a fire which resulted in a fatality.**

### 6.2.7 Time of Day

On average between 1986 and 1994, the incidence of residential fires is relatively low during the early hours of the morning, declining from 110 fires between midnight and 1:00 am to 52 fires between 5:00 am and 6:00 am From 6:00 am onwards the rate of fires increases sharply until 10:00 am where it still increases, but at a lower rate. The rate once again increases sharply after 4:00 pm until it peaks between 6:00 pm and 7:00 pm and then drops away sharply until midnight (See Figure 6-13). The peak in total domestic fires at 6:00 pm can be attributed to a rise in kitchen fires (as indicated in
Table 6-4) due to people around this time cooking their evening meals.

The number of injuries from domestic fires fluctuates during the day, but has a sharp rise in the early evening, possibly reflecting the increase in the total number of domestic fires. There is also another peak in injuries at midnight.

An important feature highlighted by Figure 6-13 is the number of fatalities occurring during the early hours of the morning when the majority of people are asleep and the number of fire incidents is low. This indicates that people are far more susceptible to death from fire while sleeping.

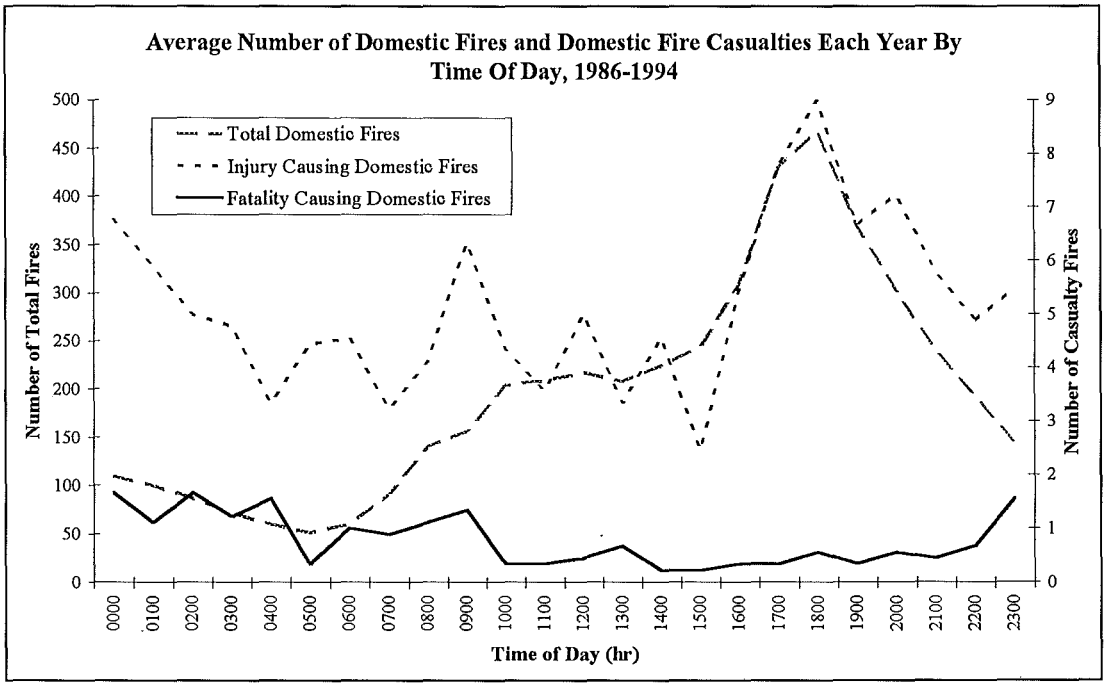



**Figure 6-13: Number of injuries and fatalities caused by domestic fires along with the total number of domestic fires plotted by time of occurrence.**

Tables E-2, E-3, and E-4 in appendix E display the number of domestic fires by the alarm hour for each year and the average over the years 1986 to 1994.

Table 6-2 through to Table 6-5 below give an insight as to what is occurring at different times of the day, by giving the percentage of different happenings in three hour time steps.

In Table 6-2 it can be observed that the highest occurrence of asphyxia only injuries occur between the hours of 12 am and 12 pm This coincides with the majority of the victims at this time being asleep (see Table 6-5), and being situated on the same floor as the fire origin, not in the room of fire origin (see
Table 6-4).

Day time (9 am to 9 pm) injuries more commonly involved burns only and appear to be a result of trying to control the fire. A greater proportion of fire control injuries occurred during the day (see Table 6-5). It is suspected that this is due to there being

more fire control being carried out during the day, as the people involved will generally be awake and unimpaired. This leads to the fire being discovered in its earlier stages of development, where people will be more likely to attempt to extinguish it. Additionally due to it being daylight, there will be greater visibility to fathom the extent of the fire. At night time a fire is more likely to be at a stage beyond fire control on discovery, and the occupants main concern at this stage is to evacuate to safety. The large proportion of people injured whilst escaping at night time also reflects this.

**Table 6-2: Percentage of different natures of injuries victims received during various hours of the day. Averaged over the years 1986-1994.**

| Time of Day | Nature of Injury | | | |
|---|---|---|---|---|
| | Asphyxia and Burns (%) | Burns only (%) | Asphyxia only (%) | Other (%) |
| 12 am -3 am | 16.4 | 32.7 | 42.8 | 8.2 |
| 3 am - 6 am | 15.9 | 23.9 | 47.8 | 12.4 |
| 6 am - 9 am | 18.7 | 36.4 | 36.4 | 8.4 |
| 9 am - 12 pm | 10.9 | 41.4 | 41.4 | 6.3 |
| 12 pm - 3 pm | 14.7 | 40.5 | 36.2 | 8.6 |
| 3 pm - 6 pm | 10.0 | 46.4 | 35.7 | 7.9 |
| 6 pm - 9 pm | 12.2 | 52.2 | 27.3 | 8.3 |
| 9 pm - 12 am | 6.2 | 29.7 | 56.6 | 7.6 |

**Table 6-3: Percentage of people injured in areas relative to the fire origin at different times of the day. Averaged over the years 1986-1994.**

| Time of Day | Location of victim at injury | | | |
|---|---|---|---|---|
| | Intimate with the fire (%) | Room of fire origin (%) | Floor or Building of fire origin (%) | Other (%) |
| 12 am -3 am | 11.9 | 22.6 | 54.1 | 11.3 |
| 3 am - 6 am | 12.4 | 21.2 | 64.6 | 1.8 |
| 6 am - 9 am | 10.3 | 25.2 | 62.6 | 1.9 |
| 9 am - 12 pm | 24.2 | 23.4 | 39.8 | 12.5 |
| 12 pm - 3 pm | 18.3 | 27.8 | 34.8 | 19.1 |
| 3 pm - 6 pm | 22.7 | 27.0 | 36.2 | 14.2 |
| 6 pm - 9 pm | 15.6 | 25.9 | 43.9 | 14.6 |
| 9 pm - 12 am | 12.0 | 28.9 | 49.3 | 9.9 |

**Table 6-4: Percentage of areas where domestic fires originate at different times of the day. Averaged over the years 1986-1994.**

| Time of Day | Fire Origin | | | |
|---|---|---|---|---|
| | Lounge and Dining room (%) | Bedroom (%) | Kitchen (%) | Other (%) |
| 12 am -3 am | 15.7 | 28.3 | 38.4 | 17.6 |
| 3 am - 6 am | 23.9 | 42.5 | 18.6 | 15.0 |
| 6 am - 9 am | 25.0 | 50.9 | 19.4 | 4.6 |
| 9 am - 12 pm | 22.0 | 27.6 | 29.9 | 20.5 |
| 12 pm - 3 pm | 10.3 | 36.2 | 36.2 | 17.2 |
| 3 pm - 6 pm | 14.9 | 18.4 | 54.6 | 12.1 |
| 6 pm - 9 pm | 8.3 | 25.2 | 49.5 | 17.0 |
| 9 pm - 12 am | 16.6 | 30.3 | 39.3 | 13.8 |

**Table 6-5: Percentage of the various activities victims were involved in at the time of injury at different times of the day. Averaged over the years 1986-1994.**

| Time of Day | Activity of victim at time of injury | | | | |
|---|---|---|---|---|---|
| | Escaping (%) | Rescue Attempt or Return (%) | Fire Control (%) | Sleeping (%) | Other (%) |
| 12 am -3 am | 22.6 | 4.4 | 23.9 | 31.4 | 17.6 |
| 3 am - 6 am | 17.7 | 8.0 | 14.2 | 45.1 | 15.0 |
| 6 am - 9 am | 26.2 | 12.1 | 19.6 | 23.4 | 18.7 |
| 9 am - 12 pm | 9.2 | 8.4 | 49.6 | 7.6 | 25.2 |
| 12 pm - 3 pm | 7.8 | 6.9 | 60.3 | 5.2 | 19.8 |
| 3 pm - 6 pm | 11.7 | 7.6 | 52.4 | 6.9 | 21.4 |
| 6 pm - 9 pm | 10.0 | 3.8 | 57.8 | 6.2 | 22.3 |
| 9 pm - 12 am | 21.2 | 5.5 | 30.1 | 24.0 | 19.2 |

### 6.2.8 Day of Week

On average, a greater number of domestic fires between 1986 and 1994 occurred in the weekends. Looking at Figure 6-14 the rate of domestic fire occurrence can be observed to be at its lowest on Tuesday, before it rises steadily through the week till Friday. From Friday the rate peaks sharply on Saturday before dropping back down on Sunday to a similar level as Friday.

A surprising feature of domestic fire incidents over the 1986-1994 period is that the rate of fire fatalities and injuries is greatest on Sunday. This goes against the obvious trend that, the more fire incidents there are the more fire casualties there will be. This indicates that there is possibly some socio-economic feature at play. An investigation of the Sunday fire fatalities shows that there is a greater occurrence of fires started by smoking materials and people falling asleep in the early hours of the morning (see Figure 6-15 and igure 6-16). In Figure 6-15 it is to be noted that there is no distinct trend in when the additional fire fatalities are occurring. Typically almost every time period has a greater frequency of fire fatality than the average of Monday to Saturday.

The people involved in Sunday smoking materials and falling asleep fires, were generally males in there 30's and were in their bedroom at the time of injury. They had either been smoking in bed or had gone to bed after forgetting to turn off what was cooking in the kitchen. A scenario for why this occurs on a Sunday morning may be due to the people coming home intoxicated from a bar or nightclub. Unfortunately the impaired by alcohol coding in the FIRS database does not give an insight into this hypothesis. This is because this field is only filled in when the fire officer filling in the record sheet has a strong suspicion that the person was intoxicated. If the person is dead, then without a coroners investigation it is impossible to tell if the person was intoxicated.

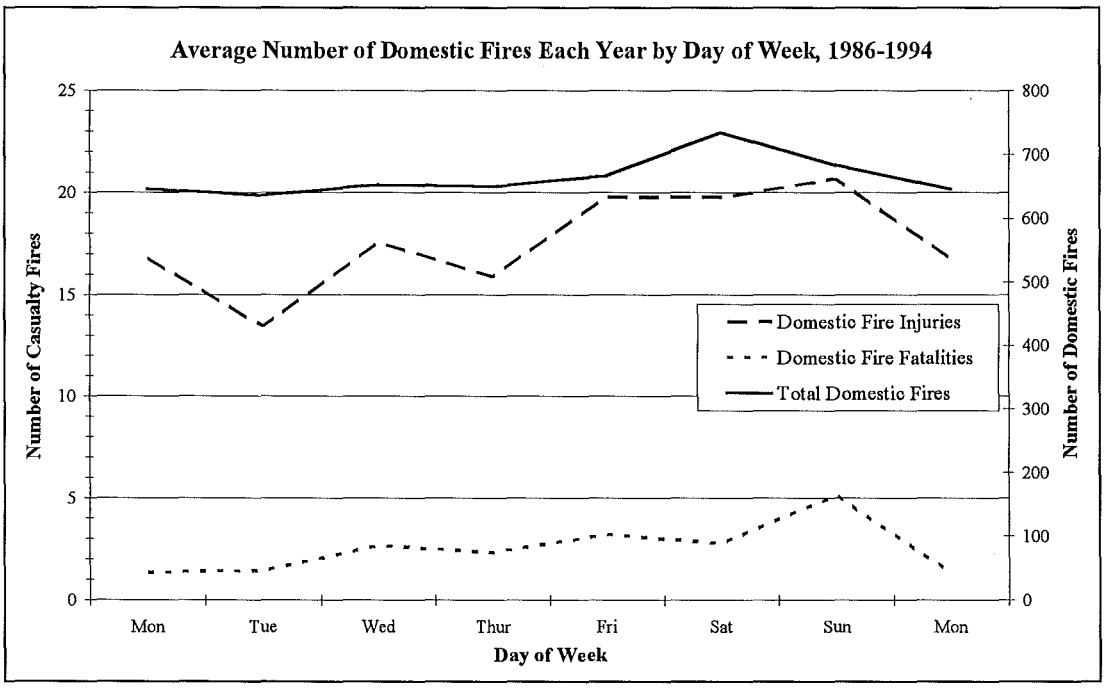



**Figure 6-14: Average number of total domestic fires, injuries and fatalities occurring on each day of week for the years 1986 to 1994.**

Note that tables E-5, E-6, and E-7 in appendix E give the number of domestic fires occurring on each day of the week for the years 1986 to 1994.

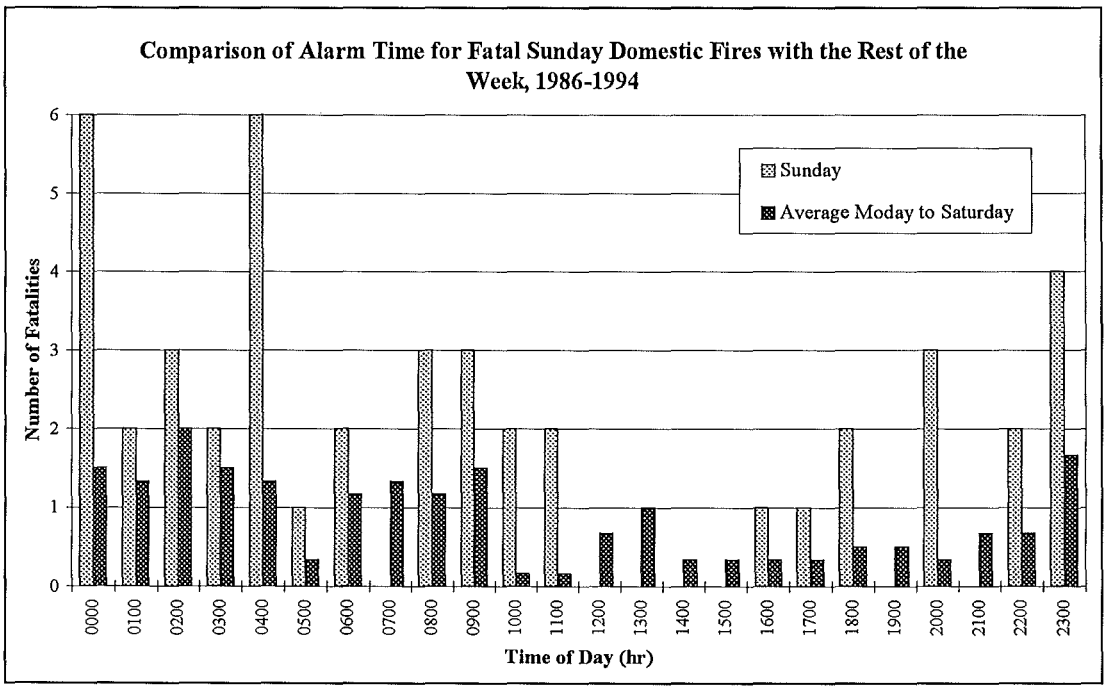
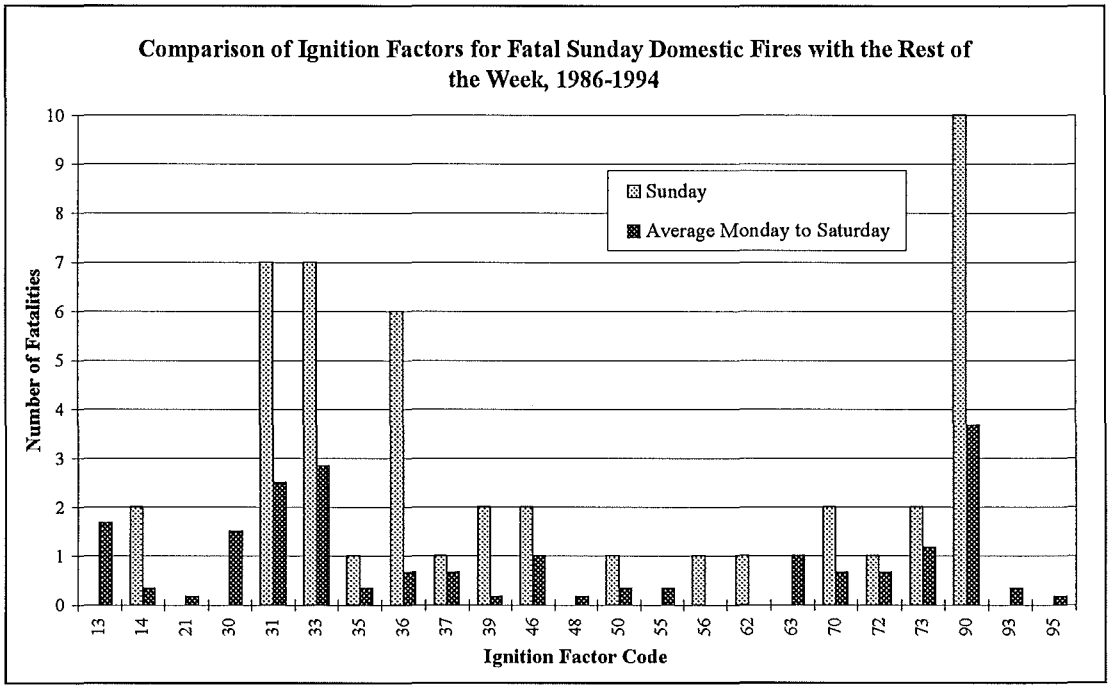



**Figure 6-15: Comparison of the time fatal domestic fires occurred on Sundays with the times they occurred on days other than Sunday, totalled over the years 1986-1994.**




**igure 6-16: Comparison of the frequency of ignition factors for fatal domestic fires that occurred on Sundays with ignition factors for fatal domestic fires that occurred on days other than Sunday, totalled over the years 1986-1994.**

### 6.2.9 Age of Victims

The injuries and fatalities that occurred between 1986 and 1994 due to domestic fires have been averaged and plotted by age and gender in Figure 6-17 and Figure 6-18.

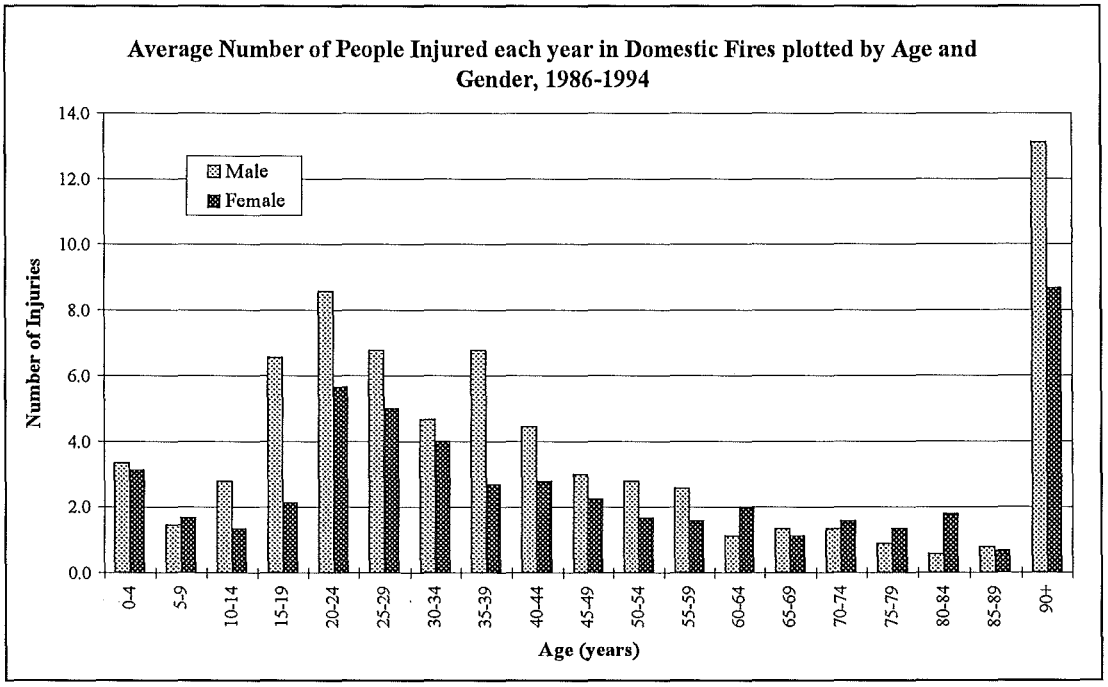



**Figure 6-17: Age of males and females injured in domestic fires.**

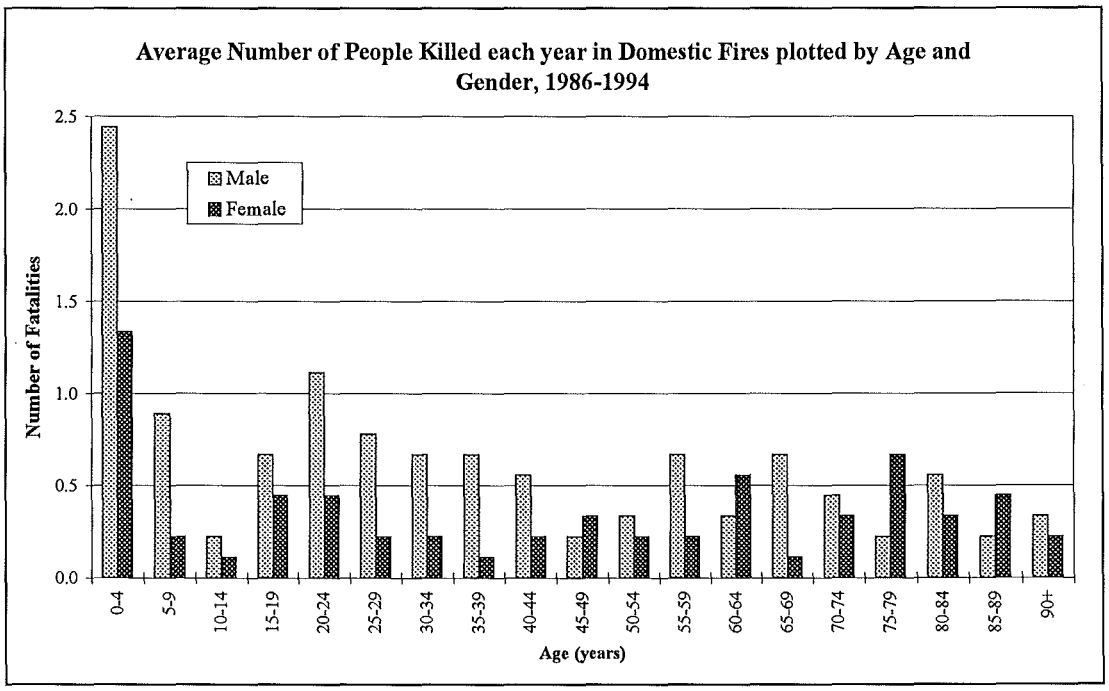



**Figure 6-18: Age of males and females killed in domestic fires.**

The extreme rise in injuries to males and females in the over 90 year age bracket may be attributed to a flaw in the recording system and transferring of data to the FIRS database. If the age of the person is not recorded on the incident report form, then upon entry into the computer database the age becomes the year the incident occurred minus 1900 (ie the computer has a date of birth default of 1900).

A breakdown of the percentage of males and females injured or killed in 5 year age groups is given in Table 6-6 and Table 6-7 along with the percentage of that category living in permanent private dwellings. The population figures were prepared by Statistics New Zealand and are based on the 1991 Census of Population and Dwellings. The figures have been adapted to fit the formatting of the tables below. See Table E-13 for the original New Zealand Statistics values.

**Table 6-6: Comparison of the percent of males injured in domestic fires with the percentage of males in that age group that reside in domestic properties.**

| MALES | | | |
|---|---|---|---|
| Age Group (years) | Percent Injured[1] | Percent Killed[2] | Percent Population[3] |
| 0 - 4 | 4.6 | 20.4 | 8.7 |
| 4 - 9 | 2.0 | 7.4 | 8.2 |
| 10 - 14 | 3.8 | 1.8 | 8.2 |
| 15 - 19 | 9.0 | 5.6 | 8.5 |
| 20 - 24 | 11.8 | 9.3 | 7.8 |
| 25 - 29 | 9.3 | 6.5 | 7.8 |
| 30 - 34 | 6.4 | 5.6 | 8.0 |
| 35 - 39 | 9.3 | 5.6 | 7.5 |
| 40 - 44 | 6.1 | 4.6 | 7.4 |
| 45 - 49 | 4.1 | 1.8 | 5.8 |
| 50 - 54 | 3.8 | 2.8 | 4.9 |
| 55 - 59 | 3.5 | 5.6 | 4.2 |
| 60 - 64 | 1.5 | 2.8 | 4.2 |
| 65 - 69 | 1.8 | 5.6 | 3.5 |
| 70 - 74 | 1.8 | 3.7 | 2.5 |
| 75 - 79 | 1.2 | 1.8 | 1.7 |
| 80 - 84 | 0.8 | 4.6 | 0.9 |
| 85 - 89 | 1.1 | 1.8 | 0.3 |
| 90 + | 18.0 | 2.8 | 0.05 |
| Total | 100 | 100 | 100 |

**Table 6-7: Comparison of the percent of females injured in domestic fires with the percentage of females in that age group that reside in domestic properties.**

| FEMALES | | | |
|---|---|---|---|
| Age Group (years) | Percent Injured[1] | Percent Killed[2] | Percent Population[3] |
| 0 - 4 | 6.1 | 19.7 | 8.1 |
| 4 - 9 | 3.3 | 3.3 | 7.5 |
| 10 - 14 | 2.6 | 1.6 | 7.7 |
| 15 - 19 | 4.1 | 6.6 | 7.9 |
| 20 - 24 | 11.1 | 6.6 | 7.8 |
| 25 - 29 | 9.8 | 3.3 | 8.2 |
| 30 - 34 | 7.9 | 3.3 | 8.3 |
| 35 - 39 | 5.2 | 1.6 | 7.6 |
| 40 - 44 | 5.5 | 3.3 | 7.3 |
| 45 - 49 | 4.4 | 4.9 | 5.7 |
| 50 - 54 | 3.3 | 3.3 | 4.8 |
| 55 - 59 | 3.1 | 3.3 | 4.0 |
| 60 - 64 | 3.9 | 8.2 | 4.0 |
| 65 - 69 | 2.2 | 1.6 | 3.8 |
| 70 - 74 | 3.1 | 4.9 | 3.1 |
| 75 - 79 | 2.6 | 9.8 | 2.3 |
| 80 - 84 | 3.5 | 4.9 | 1.3 |
| 85 - 89 | 1.3 | 6.6 | 0.4 |
| 90 + | 17.0 | 3.3 | 0.1 |
| Total | 100 | 100 | 100 |

Notes to Table 6-6 and Table 6-7:

[1] Number in age group injured (or killed) divided by the total number injured (or killed).

[2] Number in age group injured (or killed) divided by the total number injured (or killed).

[3] Population in the age group that reside in permanent dwellings divided by the total population that resides in permanent dwellings.

The only age group for males where there is a relatively larger proportion of the population (other than the over 90 year group) that are getting injured and killed is the 20 to 24 year group. For the other age groups the rate of injury is low when compared to the actual population for the years 0 to 15, is high for the years 15 to 30, and is again low for the years 30 onwards. The rate of death is very high for under 5 year olds (it is surprising to note the correspondingly low injury rate), and is reasonably low for all other age groups except the 20 to 24 year olds and over 55 year olds.

For females there is again the surprising feature of a high death rate and a correspondingly low injury rate for the under 5 year group. The age group where females are at greatest risk of being injured in a domestic fire (other than over 90) is the 20 to 24 year age group. The age group which is at greatest risk of dying is the 0 to 4 year age group and the 75 to 79 year age group.

These figures fit in with features of casualties that occur elsewhere around the world. That is, the very young and the very old are at greatest risk for casualties from fire. The reasons for this typically lie in the very young not having the knowledge or mobility to escape from the fire and the very old not having the mobility or time to escape.

### 6.2.10 Location of Victims at Time of Injury

The majority of injuries occurred in equal numbers inside and outside the room of fire origin. The greater number of fire fatalities occurred in the room of fire origin, with the numbers dying on the same floor and by being intimately involved with the fire being not too far behind (see Figure 6-19).

The location of people injured and killed has been represented by gender and is shown in tables D-1 and D-2 in appendix D. The location of people injured has also been represented by time (see Table 6-3).

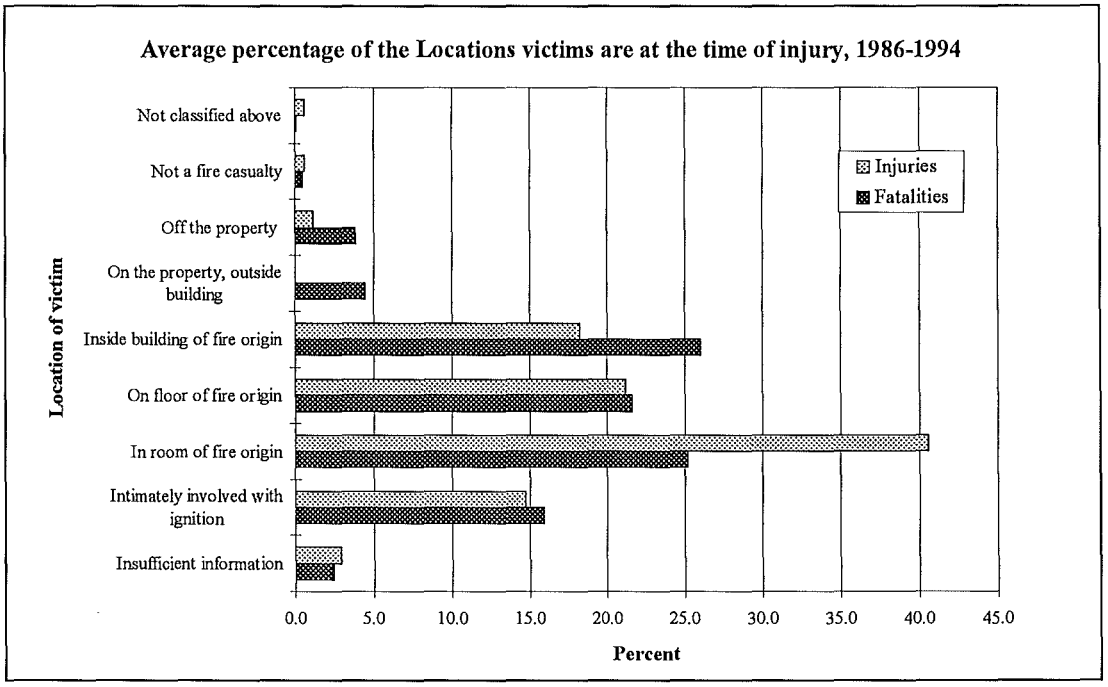



**Figure 6-19: Location of casualties at their time of injury from domestic fires.**

### 6.2.11 Condition Before Injury

The majority of injuries occur when the victims are awake and unimpaired, and when they are sleeping. The majority of fatalities occur when the victims were asleep prior to injury. Impairment by drugs and alcohol also features relatively highly for fatalities, especially in light of the reporting method not having a coroners investigation. It could be quite feasible that there were many more alcohol or drug impaired people dying.

Figure 6-20 shows the percentages of recorded conditions of people prior to injury or death from domestic fires over the years 1986 to 1994. A further breakdown of these conditions by the victims gender is given in tables D-3 and D-4.

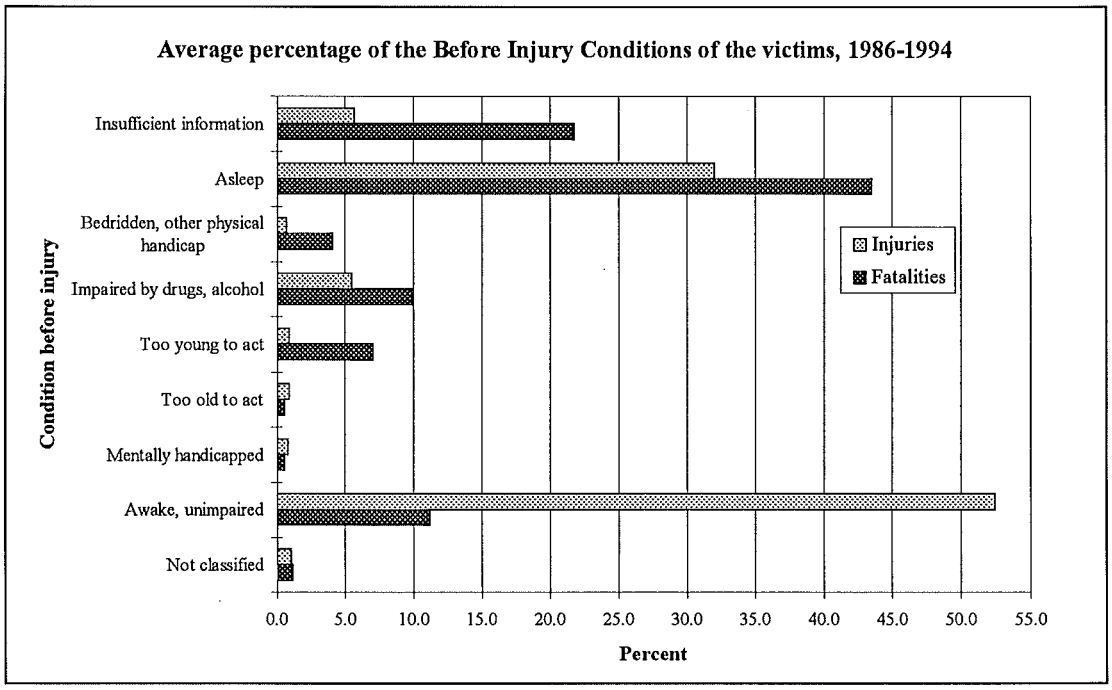



**Figure 6-20: Condition of casualties prior to injury in domestic fires.**

### 6.2.12 Condition Preventing Escape

In the majority of the incidents there was nothing significant that prevented the escape of victims from injury. For victims that were killed however the main categories were nothing significant, no time to escape due to the fire progressing too quickly or the person being intimate with the fire, or the fire being between the person and the exit (see Figure 6-21). Tables D-5 and D-6 give the conditions preventing escape by the casualty's gender.

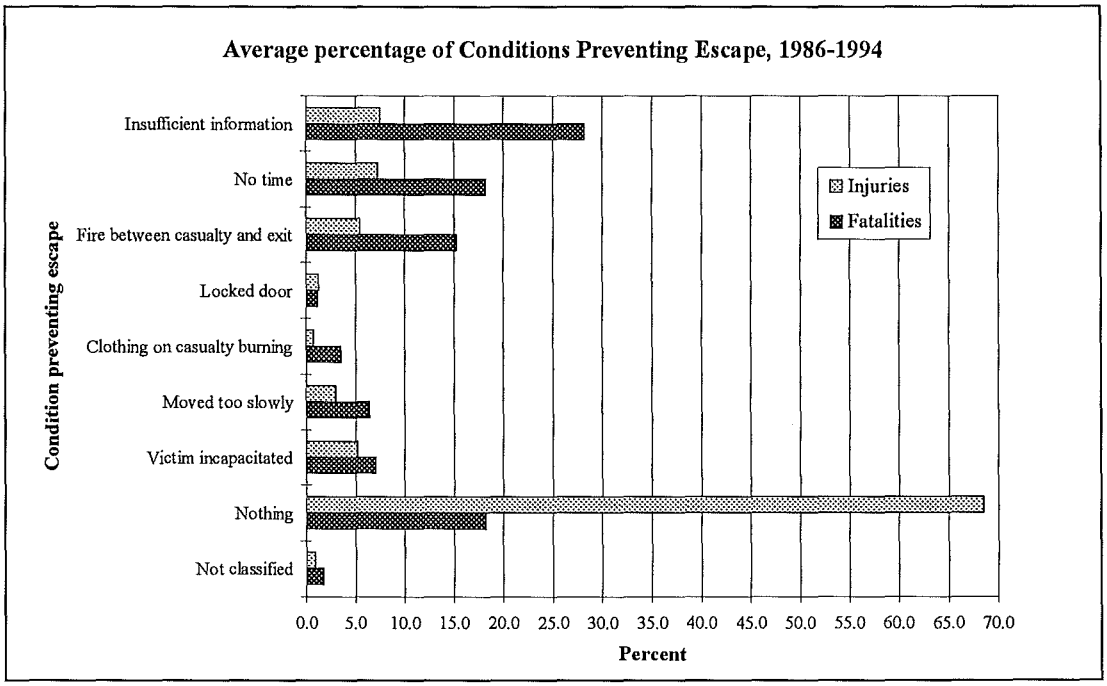



**Figure 6-21: Condition preventing the escape of casualties in domestic fires.**

### 6.2.13 Activity at Time of Injury

The main activity that led to a person being injured in a domestic fire was fire control, followed by sleeping and escaping. For fatalities the main activity was sleeping, followed by escaping (see Figure 6-22). Tables D-7 and D-8 give the activities of those injured and killed by their gender for the years 1986 to 1994.

A breakdown of activities by the time of occurrence for those injured is given in Table 6-5. As mentioned earlier more fire control leading to injury is carried out during the daylight hours, while more injuries occur as people are asleep during the early hours of the morning. Injuries resulting from rescue attempts or from returning to the building for some other reason were reasonably constant in their frequency throughout the whole day.

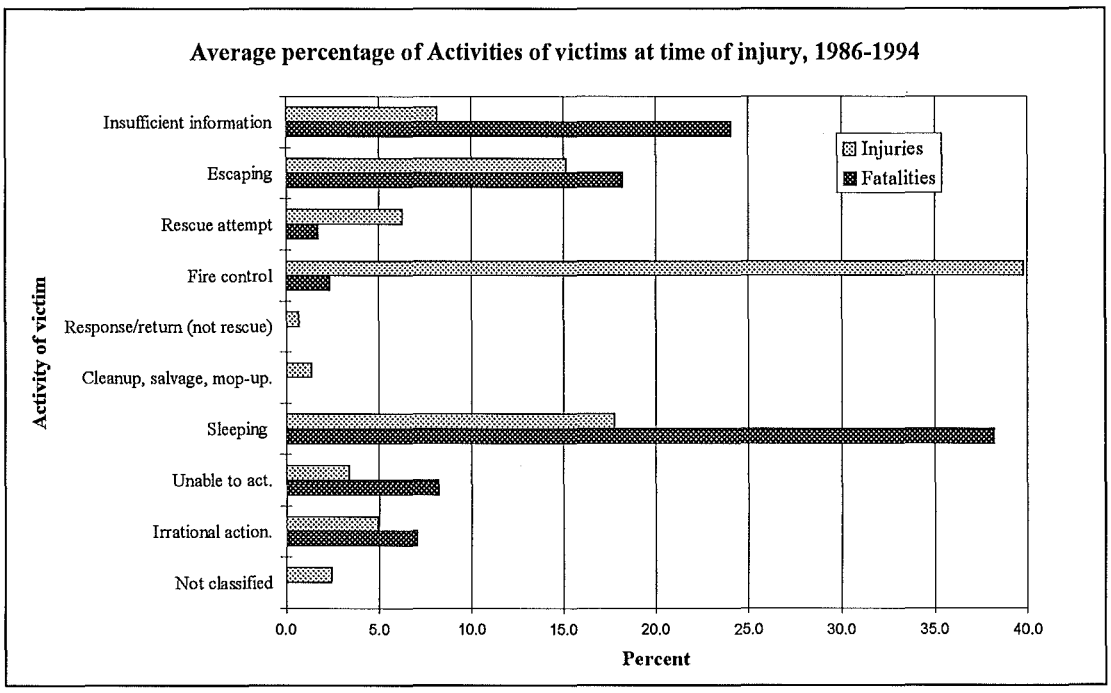



**Figure 6-22: Activity of casualties at the time of injury from domestic fires**

### 6.2.14 Nature of Injury

The majority of injuries are associated with burns only or asphyxia/smoke only, with cases of both burns and asphyxia/smoke lagging quite far behind. For fatalities the leading injury nature is burns and asphyxia/smoke (see Figure 6-23). This is more than likely attributed to the person being incapacitated by smoke and then later being burnt from the fire. Whether or not the person was still alive at the time of being burnt would be hard to decide, but typically they would be unconscious and barely alive.

Tables D-11 and D-12 give the injury natures received by casualties along with their gender for the years 1986-1994. Additionally Table 6-2 gives the nature of injury for those injured in domestic fires by the time of occurrence. From this table it can be observed that their are more burns only cases during the day, and more asphyxia/smoke only cases during the night and early morning.

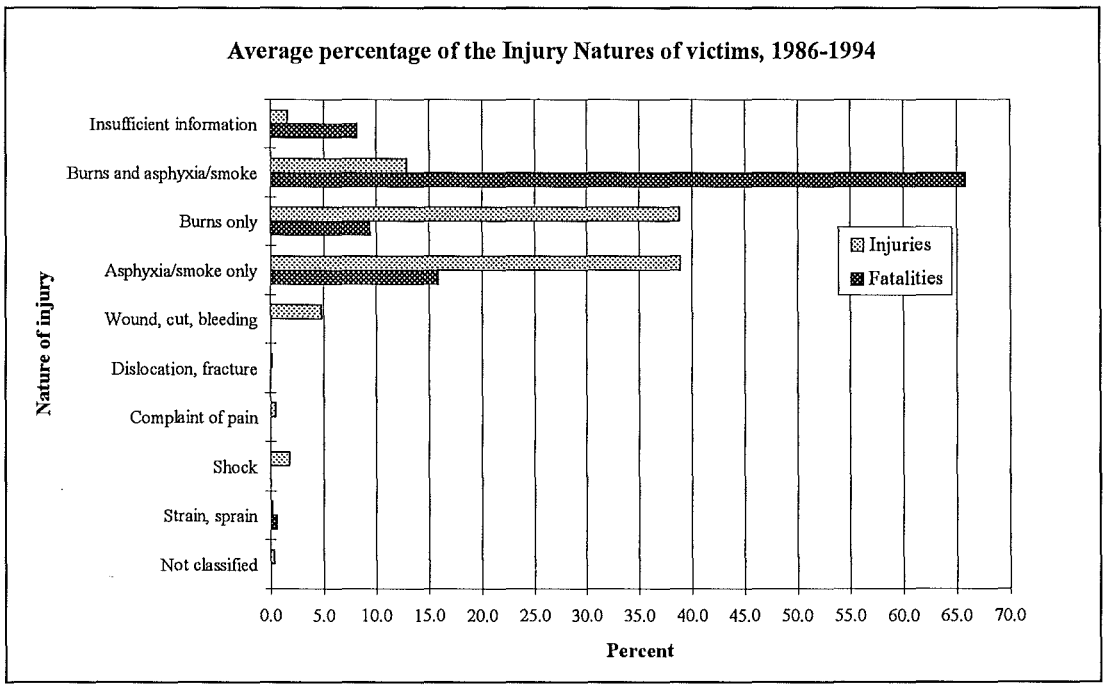



**Figure 6-23: Nature of injury received by casualties in domestic fires.**

### 6.2.15 Part of Body Injured

For victims that were only injured in domestic fires, the main body part injured was the respiratory system and the heart (internal). This is obviously associated with asphyxia/smoke only injuries. For fatalities the main body part injured was multiple parts (see Figure 6-24). This is understandable as the majority of the people killed received both burns and asphyxia/smoke injuries. This will result in the respiratory system being injured along with vast amounts of the body being burnt.

Tables D-13 and D-14 present the parts of body injured by the gender of those killed or injured in domestic fires for the years 1986 to 1994.

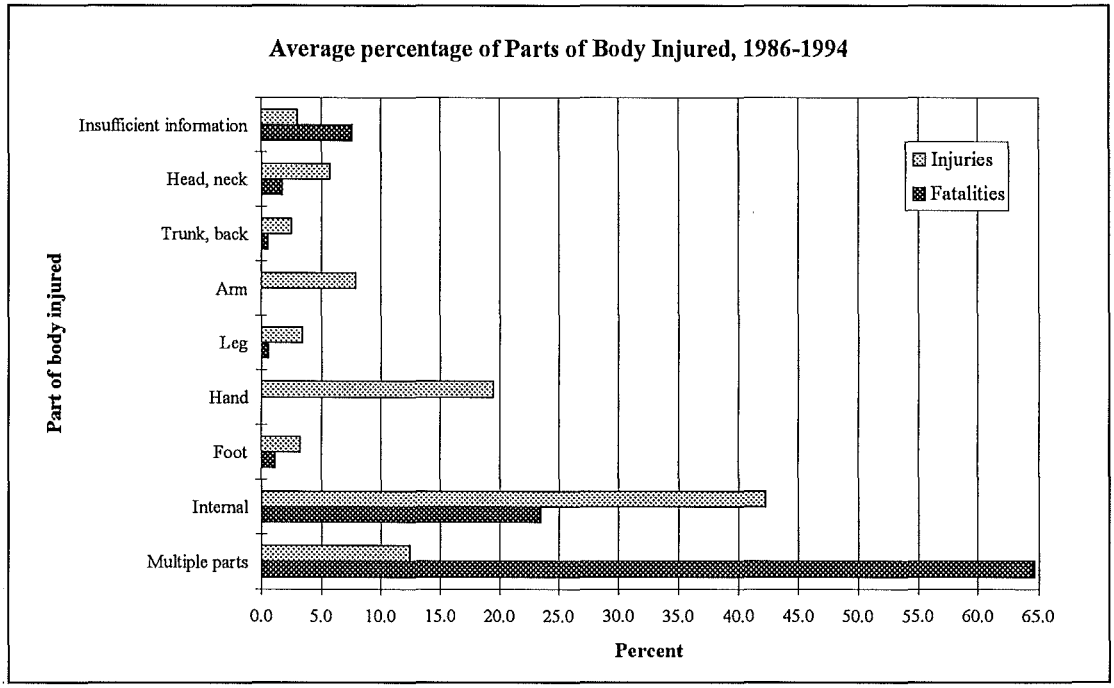



**Figure 6-24: Part of body injured in domestic fires**

### 6.2.16 Cause of Injury

Not surprisingly the main injury cause for people injured or killed in domestic fires is exposure to fire products (see Figure 6-25). There were a few incidents that the injury cause was reported to be 'caught in, under, or trapped by', and 'rubbed by or contact with'. These two categories are normally used to describe non-fire related injuries, but for some reason they have been used to describe fire injuries, as these were the only types of injuries considered (see sections 2.2.7 and 2.2.8).

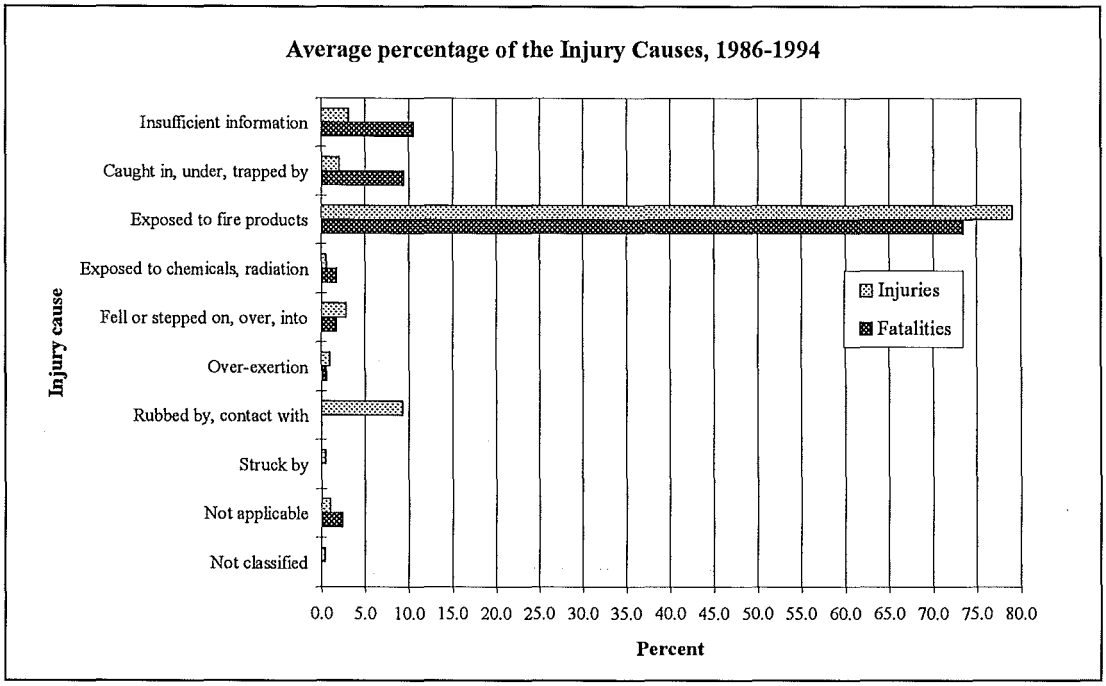



**Figure 6-25: Cause of injury for casualties in domestic fires.**

### 6.2.17 Extent of Flame Damage

The extent of flame damage versus the number of domestic fire injuries indicates that few injuries occur when the fire is confined to the firecell of origin or confined to the floor of structure. However it is believed that overall the number of incidents recorded in these two categories is relatively low due to the difficulty in differentiating between the two, as often in a residential building a firecell consists of the whole floor. On the other hand the differentiation between the fire being 'confined to part of the room of origin' and the fire being 'confined to the structure of fire origin' is relatively distinct (Narayanan and Whiting, 1996) and this may explain the two peaks in these categories (see Figure 6-26). The frequency of fatalities is greatest in fires confined to the structure of origin, and is relatively constant over the other categories.

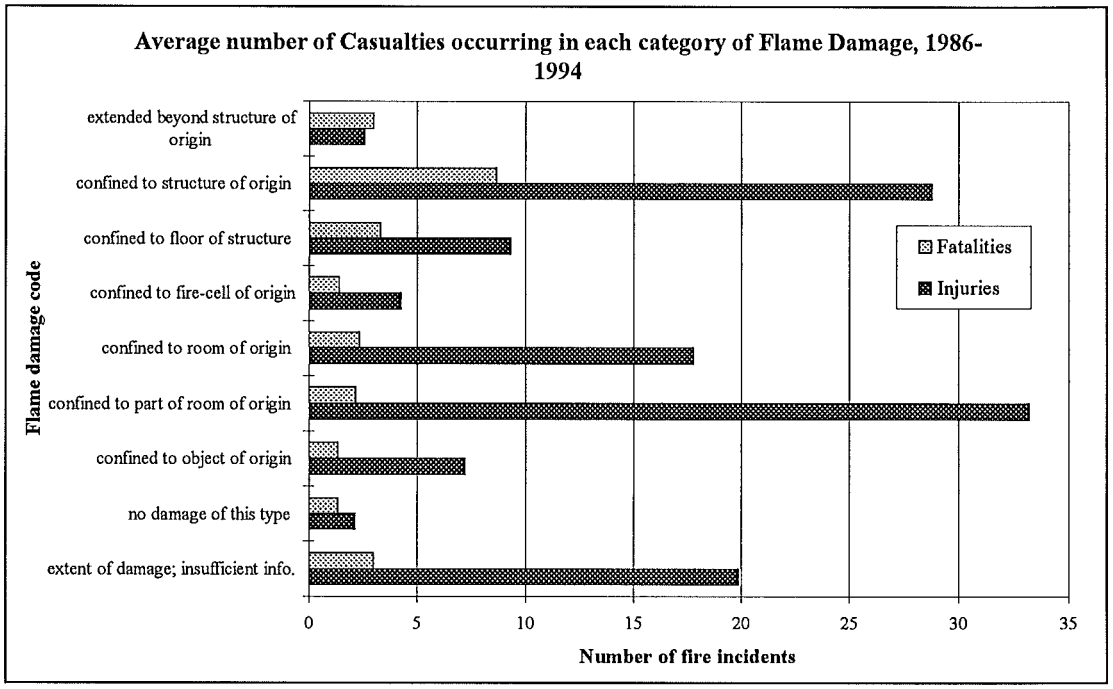



**Figure 6-26: Average number of casualties occurring in each of the different categories of flame damage, 1986-1994.**

An examination of the nature of injuries received by victims relative to the extent of fire damage is presented in Table 6-8. There does not appear to be any obvious trend in the proportion of injury natures when compared to the extent of flame damage. It is to be noted that the large proportion of flame damage categorised in the 'other' section is almost entirely made up of incidents where the extent of flame damage was recorded as 'insufficient information to classify further'.

**Table 6-8: Percentage of different natures of injuries victims received for various extents of flame damage to the building. Averaged over the years 1986-1994.**

| Flame Damage confined to: | Nature of Injury | | | |
|---|---|---|---|---|
| | Asphyxia and Burns (%) | Burns only (%) | Asphyxia only (%) | Other (%) |
| Object | 1.5 | 46.2 | 46.2 | 6.2 |
| Part of room | 9.7 | 39.1 | 42.8 | 8.4 |
| Room | 11.3 | 36.9 | 45.0 | 6.9 |
| Firecell | 21.4 | 28.6 | 32.1 | 17.9 |
| Floor | 17.9 | 39.3 | 32.1 | 10.7 |
| Structure | 17.4 | 36.1 | 31.9 | 14.6 |
| Other | 14.5 | 41.5 | 38.5 | 5.5 |

## 6.3 Comparison of Fire Features

The following set of tables go some way in comparing the sub-categories of the fire features detailed in sections 4.2 and 6.2. They give the number and percentages each time the various sub-categories were involved in the total number of domestic fires, the domestic fires that resulted in injury, and the domestic fires that resulted in death. Note that a question mark (?) in the codes column stands for any digit, and a hash (#) stands for any digit that makes up a code that has not been represented elsewhere in the table.

**Table 6-9: The number and percentage of times different areas of fire origin were involved in domestic fires in general, and domestic fires that resulted in injury and death.**

| Area of Fire Origin | | Domestic Fires | | | | | |
|---|---|---|---|---|---|---|---|
| | | Total | | Injury causing | | Fatality causing | |
| Codes | Description | Number | Percentage | Number | Percentage | Number | Percentage |
| 01 | Hallway or corridor | 594 | 1.4 | 10 | 0.9 | 1 | 0.6 |
| 14 | Lounge | 5350 | 12.7 | 166 | 14.9 | 40 | 23.5 |
| 23 | Dining room | 526 | 1.3 | 15 | 1.3 | 4 | 2.4 |
| 21, 22 | Bedroom | 4675 | 11.1 | 347 | 31.1 | 65 | 38.2 |
| 24 | Kitchen | 9318 | 22.2 | 419 | 37.6 | 41 | 24.1 |
| 26 | Laundry and wash house | 1387 | 3.3 | 26 | 2.3 | 2 | 1.2 |
| 47 | Garage or carport | 927 | 2.2 | 22 | 2.0 | 4 | 2.4 |
| 57 | Chimney | 6426 | 15.3 | 5 | 0.4 | 0 | 0.0 |
| 42 | Wardrobe or cupboard | 274 | 0.7 | 6 | 0.5 | 0 | 0.0 |
| 62 | Heating equipment room, water heater | 234 | 0.6 | 4 | 0.4 | 0 | 0.0 |
| 71 | Crawl space, substructure space | 330 | 0.8 | 6 | 0.5 | 1 | 0.6 |
| 72 | Exterior balcony, open porch | 229 | 0.5 | 5 | 0.4 | 1 | 0.6 |
| 73 | Ceiling and floor assembly | 222 | 0.5 | 1 | 0.1 | 2 | 1.2 |
| 74 | Ceiling and roof assembly | 837 | 2.0 | 7 | 0.6 | 0 | 0.0 |
| 75 | Wall assembly | 569 | 1.4 | 3 | 0.3 | 0 | 0.0 |
| 76 | Exterior wall surface | 1140 | 2.7 | 11 | 1.0 | 0 | 0.0 |
| 77 | Exterior roof surface | 101 | 0.2 | 3 | 0.3 | 1 | 0.6 |
| 97 | Multiple areas | 38 | 0.1 | 1 | 0.1 | 0 | 0.0 |
| 94 | Lawn, field, open area | 159 | 0.4 | 0 | 0.0 | 0 | 0.0 |

**Table 6-10: The number and percentage of times different equipment were involved in ignition of domestic fires in general, and domestic fires that resulted in injury and death.**

| Equipment Involved in Ignition | | Domestic Fires | | | | | |
|---|---|---|---|---|---|---|---|
| | | Total | | Injury causing | | Fatality causing | |
| Codes | Description | Number | Percentage | Number | Percentage | Number | Percentage |
| 9800 | No equipment involved | 24064 | 57.3 | 634 | 56.9 | 116 | 68.2 |
| 1411 | Open front in-built fireplace | 1114 | 2.7 | 9 | 0.8 | 0 | 0.0 |
| 1421 | Enclosed front in-built fireplace | 532 | 1.3 | 0 | 0.0 | 0 | 0.0 |
| 1441 | Free standing indoor fireplace | 866 | 2.1 | 9 | 0.8 | 0 | 0.0 |
| 15?? | Portable local heating units | 904 | 2.2 | 65 | 5.8 | 17 | 10.0 |
| 16?? | Chimney, gas vent flue | 1077 | 2.6 | 0 | 0.0 | 0 | 0.0 |
| 2101 | Electric stovetop | 1306 | 3.1 | 76 | 6.8 | 8 | 4.7 |
| 22?? | Fixed stationary oven | 3168 | 7.5 | 127 | 11.4 | 10 | 5.9 |
| 25?? | Portable cooking, warming unit | 230 | 0.5 | 6 | 0.5 | 1 | 0.6 |
| 4??? | Electrical distribution equipment | 1073 | 2.6 | 19 | 1.7 | 2 | 1.2 |
| 51?? | T.V., stereo, radio, video appliances | 513 | 1.2 | 18 | 1.6 | 4 | 2.4 |
| 52?? | Dryers | 369 | 0.9 | 17 | 1.5 | 0 | 0.0 |
| 53?? | Washing machine | 770 | 1.8 | 3 | 0.3 | 0 | 0.0 |
| 5701 | Electric blanket | 1048 | 2.5 | 64 | 5.7 | 6 | 3.5 |
| 87?? | Torch, welder | 192 | 0.5 | 6 | 0.5 | 0 | 0.0 |

**Table 6-11: The number and percentage of times different forms of heat of ignition were involved in domestic fires in general, and domestic fires that resulted in injury and death.**

| Form of Heat of Ignition | | Domestic Fires | | | | | |
|---|---|---|---|---|---|---|---|
| | | Total | | Injury causing | | Fatality causing | |
| Codes | Description | Number | Percentage | Number | Percentage | Number | Percentage |
| 0? | Sparks, heat, etc outside open fires | 1264 | 3.0 | 14 | 1.3 | 0 | 0.0 |
| 1? | Heat from liquid or gas fuelled equip. | 1981 | 4.7 | 55 | 4.9 | 3 | 1.8 |
| 2? | Heat from solid fuelled equip. | 5790 | 13.8 | 35 | 3.1 | 7 | 4.1 |
| 3? | Heat from electrical equipment arcing | 4884 | 11.6 | 124 | 11.1 | 10 | 5.9 |
| 43 | Hot ember, ash | 1784 | 4.2 | 22 | 2.0 | 0 | 0.0 |
| 46 | Heat properly operating electric equip. | 7006 | 16.7 | 363 | 32.6 | 38 | 22.4 |
| 47 | Heat improperly operating elec. equip. | 821 | 2.0 | 35 | 3.1 | 5 | 2.9 |
| 5? | Heat from explosives, fireworks | 257 | 0.6 | 4 | 0.4 | 0 | 0.0 |
| 61 | Cigarette | 1130 | 2.7 | 107 | 9.6 | 25 | 14.7 |
| 64 | Match | 1734 | 4.1 | 60 | 5.4 | 11 | 6.5 |
| 65 | Lighter | 802 | 1.9 | 58 | 5.2 | 2 | 1.2 |
| 66 | Candle | 411 | 1.0 | 48 | 4.3 | 8 | 4.7 |
| 60, 63 | Undetermined smoking material | 2352 | 5.6 | 26 | 2.3 | 9 | 5.3 |
| 8? | Exposure fire | 364 | 0.9 | 4 | 0.4 | 0 | 0.0 |

**Table 6-12: The number and percentage of times different material types ignited in domestic fires in general, and domestic fires that resulted in injury and death.**

| Type of Material Ignited | | Domestic Fires | | | | | |
|---|---|---|---|---|---|---|---|
| | | Total | | Injury causing | | Fatality causing | |
| Codes | Description | Number | Percentage | Number | Percentage | Number | Percentage |
| 1?? | Gas | 340 | 0.8 | 24 | 2.2 | 0 | 0.0 |
| 271 | Combustible liquid f.p.>61°C | 1813 | 4.3 | 118 | 10.6 | 5 | 2.9 |
| 2## | Other flammable, combustible liquid | 843 | 2.0 | 69 | 6.2 | 14 | 8.2 |
| 311 | Fat, grease (food) | 3244 | 7.7 | 170 | 15.2 | 6 | 3.5 |
| 341 | Adhesive, resin, tar | 772 | 1.8 | 3 | 0.3 | 0 | 0.0 |
| 342 | Soot/creosote in chimney flue | 1716 | 4.1 | 3 | 0.3 | 0 | 0.0 |
| 400 | Plastic, insuff. info. to classify | 1147 | 2.7 | 15 | 1.3 | 1 | 0.6 |
| 413 | Rigid plastics, perspex | 986 | 2.3 | 22 | 2.0 | 2 | 1.2 |
| 431 | Flexible plastic, PVC | 732 | 1.7 | 12 | 1.1 | 1 | 0.6 |
| 441 | Flexible polyurethane foam | 122 | 0.3 | 7 | 0.6 | 2 | 1.2 |
| 551 | Grain, natural fibre | 347 | 0.8 | 23 | 2.1 | 3 | 1.8 |
| 561 | Coal, coke, briquettes, peat | 3116 | 7.4 | 1 | 0.1 | 0 | 0.0 |
| 571 | Food, starch | 1162 | 2.8 | 25 | 2.2 | 5 | 2.9 |
| 631 | Sawn wood, all finished timber | 5752 | 13.7 | 64 | 5.7 | 23 | 13.5 |
| 671,672 | Paper | 1566 | 3.7 | 58 | 5.2 | 2 | 1.2 |
| 711 | Man-made fibre finished goods | 1623 | 3.9 | 128 | 11.5 | 20 | 11.8 |
| 721 | Cotton, rayon finished goods | 1495 | 3.6 | 109 | 9.8 | 16 | 9.4 |
| 731 | Wool, wool mixed finished goods | 871 | 2.1 | 47 | 4.2 | 9 | 5.3 |
| 971 | Multiple types | 2462 | 5.9 | 62 | 5.6 | 30 | 17.6 |

**Table 6-13: The number and percentage of times different forms of materials were ignited in domestic fires in general, and domestic fires that resulted in injury and death.**

| Form of Material Ignited | | Domestic Fires | | | | | |
|---|---|---|---|---|---|---|---|
| | | Total | | Injury causing | | Fatality causing | |
| Codes | Description | Number | Percentage | Number | Percentage | Number | Percentage |
| 121 | Exterior sidewall covering, finish | 1215 | 2.9 | 11 | 1.0 | 0 | 0.0 |
| 151 | Interior wall covering | 1148 | 2.7 | 27 | 2.4 | 5 | 2.9 |
| 171 | Structural member, framing | 1973 | 4.7 | 15 | 1.3 | 5 | 2.9 |
| 211 | Upholstered furniture | 729 | 1.7 | 56 | 5.0 | 13 | 7.6 |
| 321 | Bedding, blanket, sheet | 1964 | 4.7 | 164 | 14.7 | 30 | 17.6 |
| 341 | Wearing apparel not on person | 735 | 1.7 | 47 | 4.2 | 1 | 0.6 |
| 361 | Curtain, blind, tapestry | 426 | 1.0 | 25 | 2.2 | 1 | 0.6 |
| 441 | Magazine, newspaper, writing paper | 529 | 1.3 | 27 | 2.4 | 0 | 0.0 |
| 611 | Electrical wire, cable insulation | 2296 | 5.5 | 29 | 2.6 | 2 | 1.2 |
| 651 | Fuel | 1103 | 2.6 | 62 | 5.6 | 9 | 5.3 |
| 751 | Rubbish, garbage, waste | 3381 | 8.0 | 24 | 2.2 | 0 | 0.0 |
| 761 | Cooking materials | 5824 | 13.9 | 306 | 27.4 | 18 | 10.6 |
| 781 | Film, residue (soot) | 2065 | 4.9 | 1 | 0.1 | 0 | 0.0 |
| 811 | Dust, fibre, lint | 2331 | 5.5 | 6 | 0.5 | 2 | 1.2 |
| 971 | Multiple forms | 215 | 0.5 | 9 | 0.8 | 5 | 2.9 |

**Table 6-14: The number and percentage of times different ignition factors were involved in domestic fires in general, and domestic fires that resulted in injury and death.**

| Ignition Factor | | Domestic Fires | | | | | |
|---|---|---|---|---|---|---|---|
| | | Total | | Injury causing | | Fatality causing | |
| Codes | Description | Number | Percentage | Number | Percentage | Number | Percentage |
| 11 | Unlawful incendiary | 486 | 1.2 | 14 | 1.3 | 0 | 0.0 |
| 13 | Incendiary-lawfulness not determined | 722 | 1.7 | 20 | 1.8 | 10 | 5.9 |
| 14 | Suspicious | 1199 | 2.9 | 28 | 2.5 | 4 | 2.4 |
| 31 | Abandoned, discarded heat source | 1832 | 4.4 | 84 | 7.5 | 22 | 12.9 |
| 33 | Falling asleep | 693 | 1.6 | 116 | 10.4 | 24 | 14.1 |
| 35, 46 | Heat source & combustibles too close | 2305 | 5.5 | 79 | 7.1 | 11 | 6.5 |
| 36, 48 | Children playing | 1797 | 4.3 | 102 | 9.1 | 11 | 6.5 |
| 3# | Other misuse heat of ignition | 2156 | 5.1 | 87 | 7.8 | 17 | 10.0 |
| 4# | Other misuse material ignited | 1350 | 3.2 | 63 | 5.7 | 0 | 0.0 |
| 54 | Short circuit, earth fault | 1735 | 4.1 | 31 | 2.8 | 0 | 0.0 |
| 55 | Other electrical failure | 1319 | 3.1 | 23 | 2.1 | 2 | 1.2 |
| 56 | Lack of maintenance, worn out | 2061 | 4.9 | 8 | 0.7 | 1 | 0.6 |
| 63, 64 | Installation deficiency | 1484 | 3.5 | 17 | 1.5 | 6 | 3.5 |
| 6# | Other design, construction deficiency | 689 | 1.6 | 6 | 0.5 | 1 | 0.6 |
| 73 | Equipment unattended | 3990 | 9.5 | 216 | 19.4 | 9 | 5.3 |
| 75 | Failure to clean | 2643 | 6.3 | 3 | 0.3 | 0 | 0.0 |
| 7# | Other operational deficiency | 3212 | 7.6 | 91 | 8.2 | 13 | 7.6 |
| 93 | Exposure fire | 269 | 0.6 | 2 | 0.2 | 2 | 1.2 |

## 6.4 Comparison to Overseas Countries

A comparison of New Zealand domestic fire figures with Australia and the United Kingdom is presented in Table 6-15. As can be observed the percentage of fires that occur in domestic structures is higher in New Zealand than in both Australia and the United Kingdom. However the percentage of fire injuries and deaths that occur in domestic structures is lower in New Zealand than in the UK, but it is higher than in Australia. Therefore New Zealand has a higher domestic fire problem than Australia, but has a lower problem than in the United Kingdom.

**Table 6-15: Comparison between New Zealand, Australia and the United Kingdom for percentages of domestic fires, injuries, and fatalities.**

| | Country | | | | |
|---|---|---|---|---|---|
| | New Zealand | Australia [1] | U.K [2] | U.S.A. [3] | Canada [4] |
| Total Fires | 22094 | 67743 | 447311 | 2018500 | 821937 |
| Domestic Fires | 4668 | 10276 | 64327 | 466200 | 176842 |
| Total Fire Injuries | 189 | 1027 | 13215 | 29080 | 14098 |
| Domestic Fire Injuries | 124 | 495 | 10937 | 20810 | 10582 |
| Total Fire Fatalities | 32 | 121 | 825 | 4887 | 1904 |
| Domestic Fire Fatalities | 19 | 53 | 598 | 3860 | 1486 |
| Domestic Fires (% total fires) | 21% | 15% | 14% | 23% | 22% |
| Domestic Fire Injuries (% total fire injuries) | 66% | 48% | 83% | 72% | 75% |
| Domestic Fire Fatalities (% total fire fatalities) | 58% | 44% | 73% | 79% | 78% |

Notes to Table 6-15:

For the figures that the numbers presented in this table were derived from refer to tables E-8 to E-12 in appendix E.

[1] The Australian figures presented here are averaged from figures published for the years 1990 to 1993 inclusive. Source of figures are from CSIRO, 1995 and CSIRO, 1993.

[2] The United Kingdom figures presented here are averaged from figures published for the years 1989 to 1993 inclusive. The source of the figures used are: Home Office, 1995; Home Office 1993; Home Office, 1992; and Home Office, 1991.

[3] The USA figures for domestic fires and domestic casualties are from Hall, 1996c (The figures include both the dwellings and manufactured homes section and the apartments section). The figures for the total fires and total civilian casualties are from a table in CTIF, 1996 (Unfortunately no definition is given for these figures so care should be taken in using these results).

[4] The Canadian figures are from ACFM/FC, 1993; ACFM/FC, 1992; and ACFM/FC, 1991 (For the domestic fires and domestic casualty figures only values involving one and two family residences and apartments, tenements, and flats were used).

# 7. Smoke Alarms

## 7.1 Description

A smoke alarm is a combined smoke detection and audible warning device, which is designed to sound an alarm within the room or suite in which it is located when it detects smoke in its vicinity (SANZ, 1989).

The two most frequently used types of detectors are the ionisation detector and the photoelectric detector. Ionisation detectors use a minute piece of radioactive material to create a field of ions that carries a flow of electric current inside the detector's chamber. When enough smoke particles enter the chamber, the electric current is interrupted, which trips a circuit that activates the alarm. Whereas a photoelectric detector uses a small beam of light aimed at a dark corner in the light-chamber of the smoke detector. When particles of smoke get in front of the light beam, they scatter the light and reflect it onto a light sensitive photocell. The alarm sounds when an electrical current is produced after enough light is reflected onto the photocell (New Zealand Fire Service, 1996b).

## 7.2 Alarm Sound

The alarm emits an intermittent high frequency tone which is intended to wake a sleeping person. Overseas requirements (NFPA 74) are that the smoke alarm should produce a sound pressure level of 85 dB(A) at 3m distance. At this level the majority of sleeping occupants would be awakened. However if there is a closed door between the alarm and the sleeping person the sound level at the pillow may be reduced to a level which may not awaken a heavy sleeper. It is therefore desirable for occupants to leave bedroom doors open or have an additional smoke alarm in the bedroom which is interconnected to those outside the bedroom (BRANZ, 1987).

## 7.3 Use in Dwellings

Smoke alarms are a particularly useful detection device for use in domestic premises. This is because they commonly discover the fire more rapidly than other detection devices after ignition, as they detect the airborne particulate matter from the fire before significant heat build-up occurs. This usually then gives the occupants additional time to evacuate the premises, try to suppress the fire, or to notify the Fire Service.

The leading cause of fatalities in dwellings involves smoke inhalation. The carbon monoxide in the smoke combined with the lack of oxygen will either kill the victim, or render the victim unconscious so they are unable to escape the flames. This particularly applies to people asleep and remote from the source of the fire (BRANZ, 1987).

Marriot (1995) writes that smoke alarms fitted in dwellings can give an early warning of fire, but will only increase the life safety of the occupants if they are positioned correctly and are regularly tested and maintained.

An additional advantage of smoke alarms is that detected fires generally cause less damage due to the earlier notification and intervention by the occupants and the Fire Service (Home Office, 1995).

## 7.4 Smoke Alarms in New Zealand

### 7.4.1 Types of detectors available

The two main types of detectors available in New Zealand are the battery operated ionisation and photoelectric detectors (see Figure 7-1). These can be found in many department stores around the country and can be as inexpensive as $15.

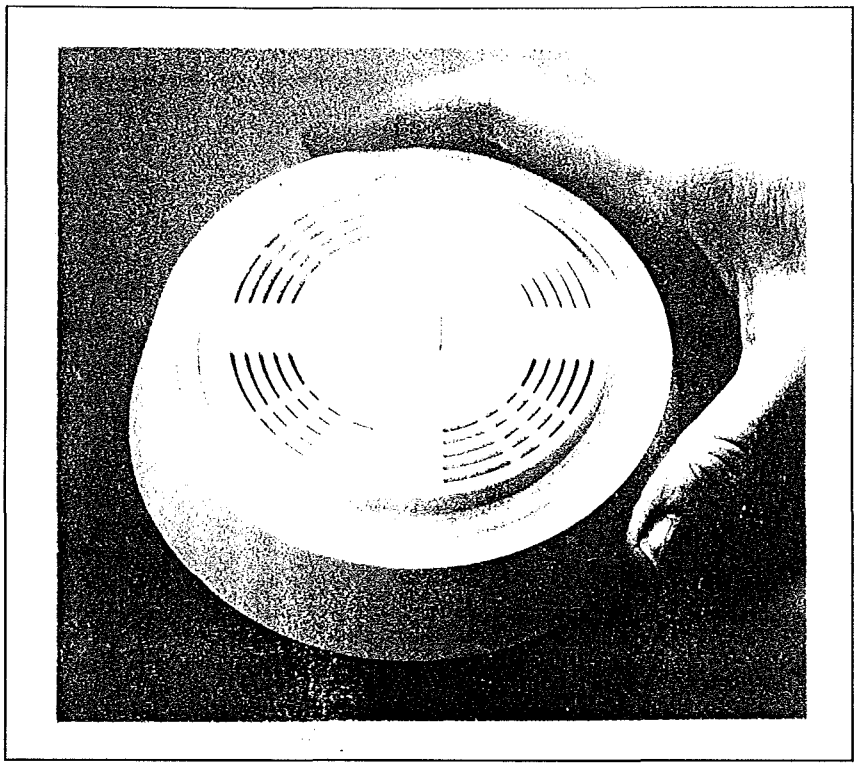


**Figure 7-1: A domestic smoke alarm (from SANZ, 1989)**

Currently there are no New Zealand Standards specifying the performance criteria domestic smoke alarms are to meet (eg. the sensitivity levels of the detector or the decibel level of the signal). Only the installation of such smoke alarms is covered by NZS 4514: 1989 The Installation of Smoke Alarms (BRANZ, 1987). This is an area of concern as smoke alarms to be of any reliance have to be manufactured with careful control and quality checks.

The New Zealand Fire Service acknowledges that smoke alarms need to be of good quality and therefore only recommends smoke alarms that are identified by one of the following prefixes:

- ANSI (American National Standards Institute);
- BS (British Standard);
- ULI (Underwriters Laboratories Inc);
- ULC (Underwriters Laboratories of Canada); or
- AS (Australian Standard).

(New Zealand Fire Service, 1996b).

Brands of smoke alarms displaying one of the above approval marks will therefore be of good quality as it will be compliant with that country's strict manufacturing standards. Purchasers of smoke alarms should therefore be warned that any brand of smoke alarm not displaying one of the above approval marks may be of an inferior quality.

### 7.4.2 Positioning of Alarms

A New Zealand Standard exists for the installation of smoke alarms. This standard is NZS 4514: 1989 The Installation of Smoke-Alarms.

The main restriction provided for the smoke alarms installation is that they should not be placed within "dead" air spaces. These dead air spaces are areas in which trapped hot air will prevent smoke from reaching the smoke alarm. These areas generally occur at the apex of sloping ceilings, at the corner junction between ceilings and walls, and between exposed floor joists or rafters (BRAC, 1994). The New Zealand Standard provides the criterion shown in Figure 7-2.

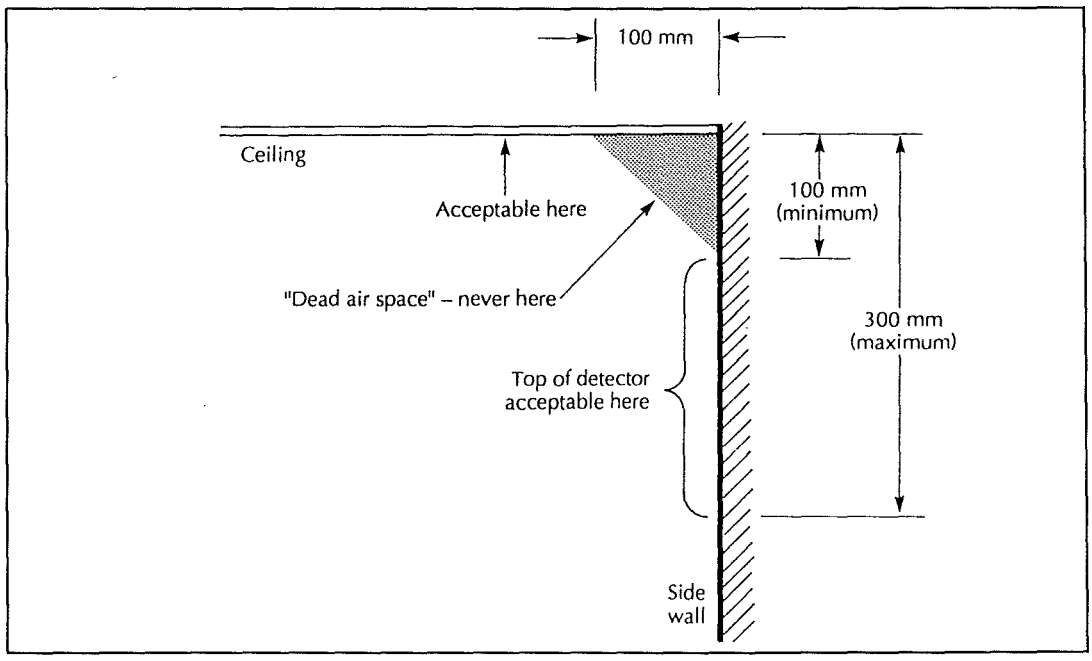



**Figure 7-2: Recommended mounting of smoke alarms (from SANZ, 1989)**

The recommended minimum and maximum coverage suggested by NZS 4514: 1989 are shown in Figure 7-3.

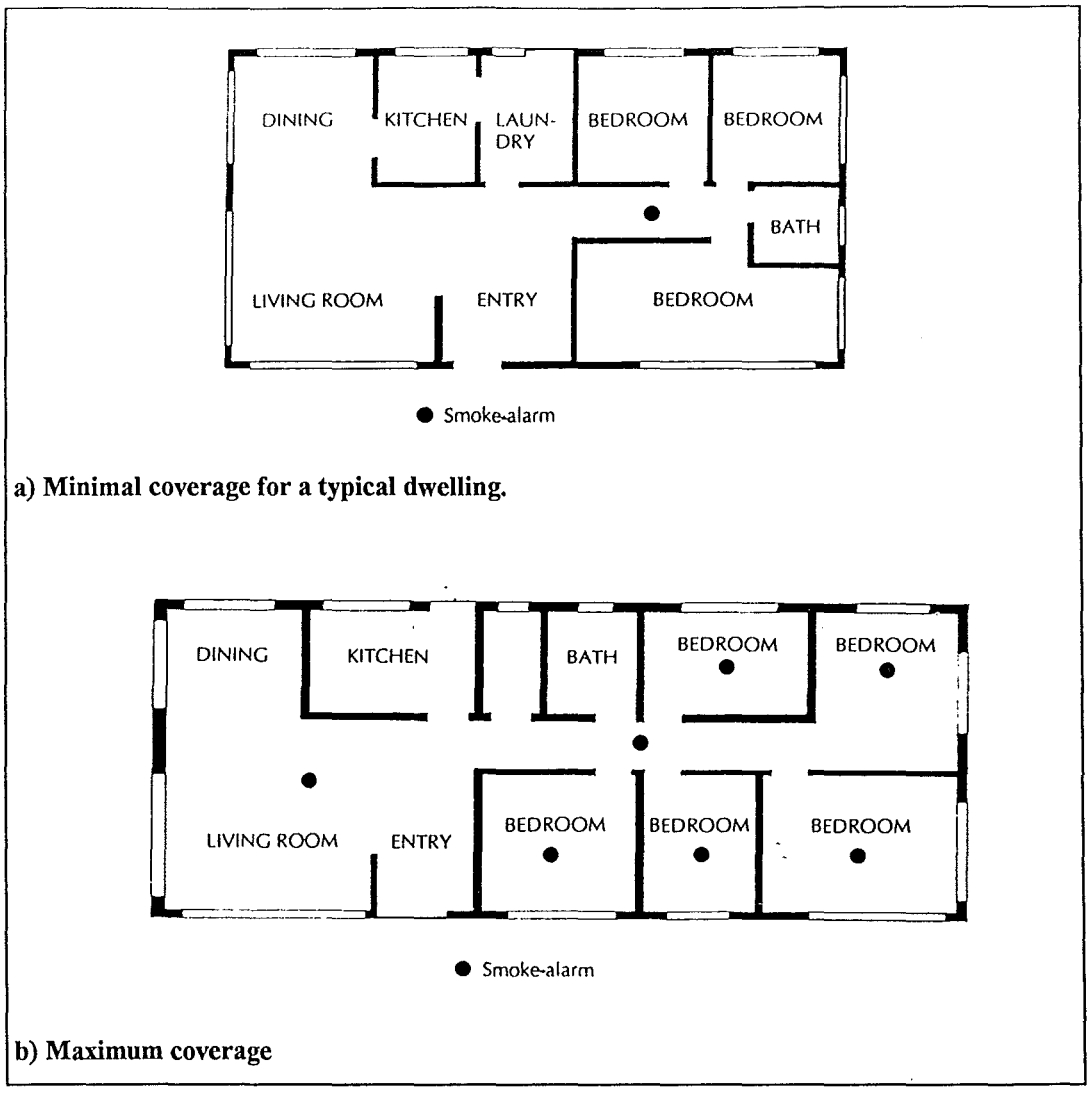



**Figure 7-3: Recommended installation of smoke detectors to provide for a) minimal coverage, b) maximum coverage (from SANZ, 1989)**

### 7.4.3 New Zealand Experience

#### *7.4.3.1 FIRS data*

The detector performance field of the New Zealand FIRS database has not been recorded particularly well over the years 1986-1994. The biggest problem is with the

single digit coding. When a field has not been recorded on the incident report sheet it appears as a zero in the FIRS database. This creates a problem as zero is the code given for 'performance of detector; insufficient information to classify further'.

Some effort has been made to change this with a modification of the coding system being carried out in the 1995 coding manual.

In 1994 a total of 4833 domestic fires occurred throughout New Zealand. Out of these fires only 1983 had a non zero code entry for detector performance. The majority of these entries (97%) were for 'no detector present'. There were only 33 reported cases of a domestic smoke alarm in the building operating and 11 cases where the smoke alarm was reported as not operating. Figures for the years 1992 and 1993 are very similar and can be found in Table E-1 in appendix E.

There were six injuries in 1994 where a detector was recorded as being present. Three of the injuries occurred where it was recorded that a domestic smoke detector(s) had operated in the building. Two injuries occurred where the smoke detector(s) in the building did not operate, and one injury occurred where a detector in the space of fire origin operated.

Two of the injuries that occurred when a smoke alarm operated were in the same incident. Both people were aged 94 and one was bedridden at the time. The bedridden person suffered burns to their back while the other person suffered smoke inhalation. The fire originated in the bedroom, where the occupants were located at the time of injury, and was caused by not turning off an electric blanket. Heat from the blanket ignited fabric on traditional type furniture. The other person injured in a fire where a smoke alarm operated was aged 37. He suffered from smoke inhalation while carrying out a rescue attempt after children playing with matches had ignited the bedroom floor.

In the two instances where people were injured and the smoke alarms did not operate they were carrying out fire control in the room of origin. They were both female and

aged 25 and 60. The 60 year suffered a burnt foot after a steam iron ignited the woollen floor covering in the lounge. The 25 year old suffered shock after an electric jug in the kitchen caught fire. In both instances it is unlikely that an operating smoke detector would have prevented injury.

#### *7.4.3.2 Market Penetration*

Decision Research Limited investigated the penetration rate of smoke alarms into New Zealand households, as part of a research project undertaken for the New Zealand Fire Service.

The investigation incorporated a survey conducted by mail of enrolled electors. The sample consisted of roughly equal numbers of electors from each of the sixty general electoral rolls as published on 21 June 1996. A total of 1346 questionnaires were sent out, 71 were returned undelivered and 786 (62%) were returned with valid responses (Decision Research Limited, 1996).

The survey found that smoke alarms were installed in the homes of nearly one half (48.3%) of the survey respondents, and that in a few areas the household income had an impact on the level of smoke alarm penetration. The result being that the higher the household income, the higher the level of smoke alarm penetration (Decision Research Limited, 1996).

The survey found that the ratio of working to installed alarms for respondents living in homes with at least one alarm installed was 95%. The survey also found that the respondents who owned their own homes were more likely to have one or more installed alarms, than respondents renting or reported other living arrangements (see Table 7-1).

**Table 7-1: Proportion of respondents reporting at least one working alarm in their home, broken down by the respondents type of tenure (from Decision Research Limited, 1996).**

| | Type of Tenure | | | Total |
|---|---|---|---|---|
| | Own | Rent | Other | |
| Proportion of respondents with alarms | 54.2% | 30.6% | 35.1% | 48.2% |
| Base | 553 | 134 | 74 | 761 |

## 7.5 USA Smoke Alarm Experience

From 1975 to 1984 the United States experienced a large growth in the usage of smoke alarms in residential properties. These alarms being principally single-station, battery operated, with an ionisation type smoke detector. Since 1984 the growth in use has been much less rapid, but it has remained fairly steady (Hall, 1994).

The National Fire Alarm Code, NFPA 72, requires a minimum of one smoke detector on every level of the home and outside each sleeping area. In new construction the code requires that hard-wired smoke detectors be interconnected, so that if one smoke detector is activated, all the detectors sound. New homes are also required to have a smoke detector inside each sleeping room (Kuklinski *et al* 1996).

As of 1995, 93% of US homes had at least one smoke detector. This equates to 13 of every 14 homes. However nearly half the fires and two-thirds of the home fire deaths still occurred in homes with no smoke detectors. Additionally in one-third of the homes with detectors that had fires the detectors were non-operational. This means that roughly 3 of every 4 homes had at least one working detector. In spite of this homes with detectors typically had a death rate about 40-50% less than for homes with detectors (Hall, 1996a).

The percentage of fires occurring in homes with smoke detectors has lagged far behind the overall percentage of homes with smoke detectors (see Figure 7-4). There

are two principal factors that could explain why this is the case. One is that households that have fires tend for a variety of reasons to be the kind of households that would be less likely to buy or own smoke detectors. The other is that smoke detectors discover some fires early enough that they can be controlled by the occupants without them needing to notify the Fire Service. However after analyses of existing data it appears more likely that it is the latter factor that is more significant (Hall, 1996a).

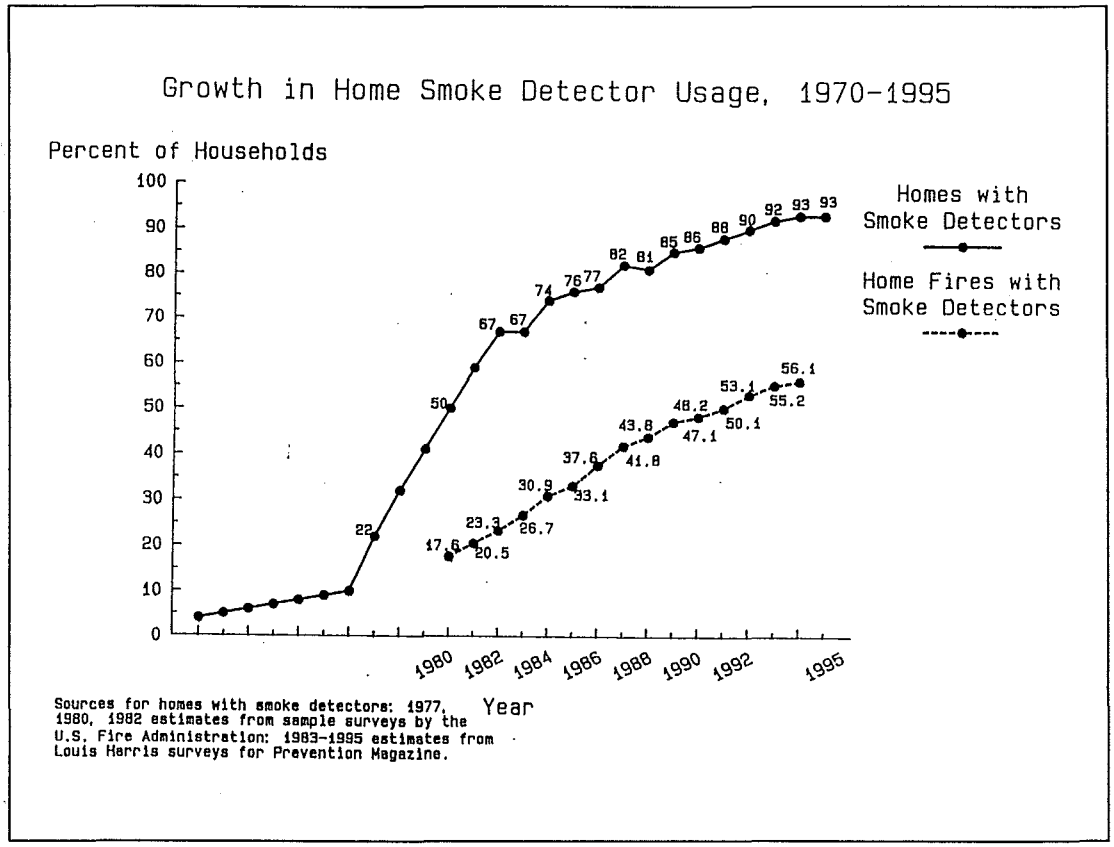



**Figure 7-4: Growth in home smoke detector usage, 1970-1995. (from Hall, 1996a)**

The U.S. Fire Administration has referred to smoke detectors as 'potentially the most cost-effective tool we have for reducing deaths from fires". (Kuklinski *et al* 1996)

Table 7-2 shows the pattern of smoke detectors on death rates. In the past 14 years of fire experience, there has been a slight downward trend in the estimated impact of smoke detectors, which is most likely attributed to the increase in non operational

detectors. Table 7-2 probably understates the value of home smoke detectors. This is because the death rates for homes with a smoke detector includes fires in homes with non-operational detectors or incomplete coverage. Secondly the figures are based on reported fires only. It is estimated that smoke detectors may reduce the number of fires to the Fire Service by 75-80%, relative to the number that would have been reported if there had been no smoke detectors (Hall, 1996a).

**Table 7-2: Life saving effectiveness of domestic smoke detectors (taken from Hall, 1996a).**

| Year | Deaths per 100 Fires | | Percentage death rate is lower with a detector present |
|---|---|---|---|
| | Detectors Present | No Detector Present | |
| 1984 | 0.43 | 0.84 | 49 |
| 1985 | 0.62 | 1.02 | 39 |
| 1986 | 0.55 | 1.07 | 40 |
| 1987 | 0.59 | 0.99 | 40 |
| 1988 | 0.66 | 1.16 | 43 |
| 1989 | 0.65 | 1.06 | 39 |
| 1990 | 0.61 | 1.14 | 46 |
| 1991 | 0.53 | 0.84 | 37 |
| 1992 | 0.57 | 1.03 | 45 |
| 1993 | 0.50 | 1.03 | 51 |
| 1994 | 0.51 | 1.03 | 51 |

The principal reasons for problems of non-operational detectors tend to be dead, disconnected or missing batteries (Hall, 1996a).

Based on 1985-1994 fire statistics it has been estimated that in dwellings, duplexes, and manufactured homes, smoke detectors are estimated to reduce the risk of dying if fire occurs by 51%. However in apartments, townhouses, and condominiums the estimated reduction is only 16%. This is despite the fact that the two types of homes have the same rate of non operational detectors. Other reasons stated for the difference are: Apartments may have fewer or longer escape routes, more cases of incomplete coverage or more success in preventing fires from growing large enough to report. Unfortunately none of these hypotheses can be analysed with available data. There is also the possibility that apartment victims ignore detector warnings, especially if they are suscepted to regular nuisance alarms outside their unit (Hall, 1996a).

## 7.6 UK Smoke Alarm Experience

The number of residential fires discovered by smoke alarms has more than quadrupled in the UK between the years 1988 and 1993. In this period Home Office research has estimated that the number of households owning and installing smoke alarms increased from 15% to over 60% (Home Office, 1995).

A summary of the number of fires discovered by smoke alarms is given in Table 7-3. Where a fire is not discovered by a smoke alarm, it does not necessarily imply that one was not present, only that it did not provide the first suggestion of fire to the occupant. In general the shorter the interval between ignition and discovery, the lower the death rate is. This helps explain the lower death rates for fires discovered by smoke alarms (see Table 7-3) as smoke alarms generally shorten the interval time between ignition and discovery (Home Office, 1995).

**Table 7-3: Fires and Casualties from fires in dwellings by whether they were discovered by a smoke alarm, by percentage discovered in under 5 minutes and percentage confined to the item first ignited, in the UK 1988-1993 (from Home Office, 1996).**

| Year | Fires | Fatal casualties | | Non-fatal casualties | | % of fires discovered < 5 minutes | % of fires confined to item ignited |
|---|---|---|---|---|---|---|---|
| | Number | Number | Per 1000 fires | Number | Per 1000 fires | % | % |
| ***Fires discovered by smoke alarms*** | | | | | | | |
| 1988 | 1094 | 2 | 2 | 142 | 130 | 73 | 70 |
| 1989 | 1737 | 6 | 3 | 245 | 141 | 67 | 65 |
| 1990 | 2297 | 18 | 8 | 376 | 164 | 67 | 65 |
| 1991 | 2892 | 13 | 4 | 455 | 157 | 69 | 68 |
| 1992 | 3818 | 10 | 3 | 583 | 153 | 70 | 68 |
| 1993 | 4959 | 16 | 3 | 679 | 137 | 70 | 70 |
| ***Fires not discovered by detectors*** | | | | | | | |
| 1988 | 62900 | 726 | 12 | 10000 | 159 | 53 | 40 |
| 1989 | 62700 | 636 | 10 | 10100 | 162 | 52 | 40 |
| 1990 | 60500 | 598 | 10 | 10000 | 165 | 52 | 40 |
| 1991 | 61100 | 595 | 10 | 10700 | 170 | 53 | 41 |
| 1992 | 60672 | 583 | 10 | 10604 | 175 | 53 | 41 |
| 1993 | 60254 | 520 | 9 | 10704 | 178 | 54 | 43 |

One study that was conducted to try and determine the effectiveness of smoke alarms, was a study carried out by the Home Office Fire and Emergency Planning Department in conjunction with the Greater Manchester County Fire Service and Tameside Metropolitan Borough Council in the late 1980's, or early 1990's (the author of the source does not specifically say). Together these two organisations devised a research project to install and monitor 5 000 ionisation and 5 000 photoelectric smoke alarms over a three year period. From this study they discovered that 89% of the detectors were still operational after three years. Of the inoperable alarms many had functioned correctly until the battery was changed, where upon the alarms sounded continuously. This problem was more common in the photoelectric detectors, which after manufacturer analysis, was shown to have been caused from a build up of dust within the optical chamber (Marriott, 1995).

In the same study mentioned above the Fire Service was called to 34 of the houses over the three year period. In 21 cases the smoke alarm alerted the occupant to the fire before any other means. In six other cases the smoke alarm sounded after the occupants became aware of the fire by other means. In the remaining 7 cases the smoke alarms did not sound. This was due to either the fire being on a floor above where the detector was positioned, or the fire being isolated from the detector by closed doors (Marriott, 1995).

## 7.7 Nuisance alarms

One serious problem that reduces the efficacy of smoke detectors is disconnecting the devices because of frequent nuisance alarms. A nuisance alarm is defined as a smoke alarm that sounds when there is no fire (Kuklinski *et al*, 1996).

In a study conducted by Kuklinski *et al* in the St. Michaels District of the Devils Lake Sioux Reservation in Benson County, North Dakota, USA, eighty households were surveyed for nuisance smoke alarms. In this study only ionisation detectors were

considered as in the survey there were only three photoelectric detectors, and none of these experienced nuisance alarms. The results of the study revealed that the majority (77%) of nuisance alarms were caused by cooking. The second commonest cause (18%) was steam from the bathroom. The type of cooking that caused most nuisance alarms was frying (77%) followed by baking (36%). Cooking related nuisance alarms were found to be significantly related to the distance of the detector from the stove. The nuisance alarm rate (ie., the percentage of detectors that experienced nuisance alarms) was 68% for detectors less than 6.1 metres away from the stove, 58% for those 6.1 to 7.6 metres away, and 36% for detectors more than 7.6 metres away. Likewise the nuisance alarm rate for steam from the bathroom was also related to the detectors distance from the bathroom. The nuisance alarm rate was 19% for detectors within 3.0 metres of the bathroom door, and 0% for those more than 3.0 metres from the door. This may indicate that the positioning of a smoke alarm outside the bathroom door as indicated by SANZ, 1989 (shown in Figure 7-3) is inappropriate as it would lead to frequent nuisance alarms. The positioning of this alarm should therefore be slightly further up the hallway towards the end bedrooms.

In the same survey by Kuklinski *et al*, forty-eight percent of the smoke detectors in the households were inoperable. Of these inoperable detectors 86% had been disabled or their batteries removed to prevent nuisance alarms. These figures are higher than other studies. For example, the National Smoke Detector Survey found that only 32% of the detectors from which the power had been disconnected or batteries removed were disabled due to nuisance alarms (Kuklinski *et al*, 1996). This figure is still reasonably high, therefore the positioning of detectors should be carried out carefully so as to avoid nuisance alarms.

A Texas study carried out in Memphis, Tennessee, found that ionisation detectors had an estimated ten times as many nuisance activation's from all sources as photoelectric detectors. The reason for this is that ionisation detectors are more responsive than photoelectric detectors to particles smaller than one micron, such as those contained in cooking smoke. This difference also explains why photoelectric detectors are somewhat more responsive to smouldering fires, which produce larger smoke

particles, while ionisation detectors are somewhat more responsive to flaming fires, which produce smaller smoke particles (Kuklinski *et al*, 1996).

New technology will reduce nuisance alarms by having detectors sense heat signatures before they set off an alarm. Nuisance alarms can also be addressed by detector relocation, the substitution of photoelectric type detectors for ionisation type detectors, reducing the detectors' sensitivity, and cleaning the detectors more frequently or effectively. However reduced detector sensitivity may affect detector performance in real fires (Hall, 1996).

Out of battery powered and direct wired detectors the preferred system is direct wiring. This is because they do not require periodic power source replacement, do not permit the removal of their power sources for use elsewhere, and are statistically less susceptible to power source interruptions leading to non-operationality (Hall, 1996).

# 8. Socio-economic Features

In any given community there are certain characteristics, some of which are structural and others socio-economic which may influence the probability of fire. At present there is inadequate data to carry out direct comparisons between the various variables which may influence the likelihood of fire. These variables can include the age structure, the rate of unemployment, the income levels, the percentage of home ownership, the percentage of people on a benefit, and the level of education of the people or households in the community.

At present the best analysis to test for socio-economic features is a multi-variate analysis. This type of analysis aims to establish relationships between community characteristics and the number of fires observed in that community. The analysis can discover trends in the data but it cannot establish the cause and effect of these trends (Davies, 1994a).

It is to be noted that with the change in the FIRS coding manual in 1995 the recording of type of ownership is made. The ownership categories being: Owner occupied; State owned; Housing NZ, Rented property; and unknown (New Zealand Fire Service, 1995). Therefore in future, studies may be conducted which make a direct comparison between the types of tenancy. Any trends discovered could then be documented and analysed in full to establish the cause and effect of the trends.

## 8.1 Munson and Oates (overseas study)

A study by Munson and Oates was among the first that tested for relationships between a communities characteristics and the incidence of fire. This study was performed in 1977 and tested seven hypotheses that included various factors that were considered to be influential on the probability of fire.

The hypotheses tested were; the probability of fire is:

1) inversely related to income.

2) less likely to occur in owner occupied than in rental dwellings.

3) greater in dwellings with children present.

4) greater in communities with high social tensions.

5) greater the higher the degree of crowding.

6) less likely the better the conditions of structures.

7) greater in colder climates.

The hypotheses were turned into empirically testable propositions to which statistical tests were made. For the study three distinctly different types of data were used. These were a set of sixty census tracts in Charlotte, North Carolina; a group of thirty-six cities and municipalities in New Jersey; and a sample of fifty-four large cities in the United States (US) with populations greater than 200000. The Charlotte data included only residential fires, while the other two data sets included all types of building fires.

The seventh hypothesis was tested first on the US city data. It involved conducting a regression on building fires per 1000 population on a measure of winter temperature. The results obtained support the proposition that colder winter temperatures increase the likelihood of fire, and suggests that an increase of 10° Fahrenheit (around 5.5° Celsius) in temperature is associated with a decrease in the incidence rate of building fires by 10 percent. This result was included in the testing of the other hypotheses by having temperature as an independent variable for the US city data. It was assumed that the temperature in the other two data sets were uniform, therefore not requiring the inclusion of an independent temperature variable.

In testing the first hypothesis two measures of income were used; median family income, and the percentage of families with incomes below the poverty line. In all cases the results with a 0.05 level of significance indicate that there is an inverse relationship between the likelihood of fires and income (ie. as income increases the incidence rate of fire decreases).

The second hypothesis ascertains that the fire incidence rate will be lower in communities with a large proportion of owner-occupied dwellings. The results of the three samples were very similar and were in support of the hypothesis. On average an increase in the percentage of owner-occupied dwellings in a community by 10 percent will result in a decrease of that communities fire incidence rate by 10 percent.

Data for the testing of the third hypothesis was not available. Tests were however carried out using age data as given from the Census. The results obtained did not support the hypothesis, and suggests that the relative size of the child-age population has little effect on the fire incidence rate.

The fourth hypothesis suggests that high levels of social tension can develop into disturbances involving an abnormally large number of fires. Acts of arson can be a source, along with increased levels of frustration and despair creating an attitude of carelessness that lessens preventative fire measures. The social factors tested for were the percentage of unemployed and the extent of racial heterogeneity of the community. The results obtained indicate that higher unemployment rates and a larger black population are positively related to the fire incidence rate.

The concept of crowding as in the fifth hypothesis was looked at in two ways. The general population density (thousands of people per square mile) was examined on the notion that greater interaction between people leads to a higher fire risk. Secondly the rate of crowding within individual dwellings was examined on the assumption that overcrowded dwellings are more prone to fire. The results obtained all supported the crowding hypotheses, but they were not statistically significant at a high level of significance.

In the sixth hypothesis, the likelihood of fire is taken to be less if the structures are in relatively good condition. Two measures from the US Census were used to provide an indication of the conditions of buildings. These measures were the percentage of dwellings lacking some or all plumbing and the percentage of dwellings built prior to

1940. The results of all the multiple-regression analyses support the hypothesis, and indicate that an increase in the percentage of dwellings lacking complete plumbing by 10 percent will increase the fire incidence rate by 40 percent.

One problem observed in this study is that the independent variables can be quite highly correlated, and this leads to interpretation problems as to their effects on the frequency of fires. One example given is the suspected high correlation between the level of income in a community and the percentage of owner-occupied dwellings. The effect of this is that the significant negative association of owner occupancy on the frequency of fire, may in fact be due to the level of income rather than the rate of owner occupancy. Further analysis was carried out investigating the effects of multi-collinearity on the three data samples. The results of which were mixed and the authors conclude that 'the independent contribution of combinations of explanatory variables remains a subject for further exploration." (Munson and Oates, 1983)

The results of the empirical analysis performed tends to support that there are relationships between the incidence of fire and the structural and socio-economic characteristics of a community. On the basis of their findings the authors suggest that a fire-prone community will have a relatively cold climate with a dilapidated houses, containing a high percentage of rental properties. In such a community the population would be poor, have a high unemployment rate, and contain a large minority population. In addition the residents would live in overcrowded land areas and households.

## 8.2 Ogilvy and Mather (New Zealand study)

Ogilvy and Mather were commissioned by the New Zealand Fire Service to complete a statistical analysis of the community characteristics that are related to incidences of residential fires in New Zealand. The papers reviewed here are parts one and two of their study 'Community characteristics of residential fire risk: a statistical analysis", which were prepared by Robert Davies in 1994.

### 8.2.1 Part 1

The study had three objectives, which were:

1. To establish relationships between the community characteristics and the observed number of structural fires.
2. To estimate the level of fire risk for each first response area (FRA).
3. To identify any FRAs which have an observed number of fires which is out of line with its fire risk.

A first response area is defined as an area to which a defined fire station could be expected to be first to arrive at (Sutton, 1994).

The community characteristics investigated come under four categories, these being: demographic; social; ethnic; and meteorological.

The demographic variables examined are the population of the FRA (population), the number of households (dwellings), the area of the FRA (area), and the population divided by area (density).

Social variables include: the percentage of the population aged 0 to 9 (under 10); the percentage of the population aged 70 and above (over 69); the median income of the households (income median); the percent of population in the age range 18 to 59 who are unemployed (unemployment); the percentage of the working age population receiving the sickness, invalids, or domestic purposes benefits (benefit); the percentage of the working age population who have no school qualification (unqualified); the percentage of households that own their dwelling (owned); and the population divided by the number of dwellings (occupancy).

The ethnic variables are: the percentage of the population who describe themselves as Maori (Maori); and the percentage of the population who describe themselves as Pacific Island people (Pacific Island).

The meteorological variables are temperature and rainfall. The temperature values used are the monthly temperatures from 1991 to 1993. The rainfall data used is that of July 1987.

A weakness of this study is that the variables are measured across the entire population, not just the households who experience fires. Ideally, the variables would be measured on households that experience fires, and households that do not experience fires would be excluded. However, this problem is unavoidable given the quality of the available statistics, but unfortunately it will cause the regression results to be less robust.

The final results of the study found that increases in the following variables cause decreases in the risk of a fire occurring: population of the FRA, owned, occupancy, and temperature. This is implied by the negative coefficients for these variables reported in the first column of Table 5 (see Table 8-1) in part one of the paper. The income, benefit, Pacific Island, and southern variables have positive coefficients, implying that they cause an increase in the fire risk.

The southern variable mentioned above was introduced as a dummy variable to account for the outlying results found for the Dunedin City, Invercargill, Kingswell and Timaru FRAs. The variable takes a value of one for these FRAs, and zero for all other FRAs. This is an ad hoc approach, as these FRAs have no theoretical basis to be treated differently, other than the model not describing them very well. Even if it is justified, then to be applied consistently, all FRAs in the southern regions of New Zealand would have a value of one for the variable, not just the problem FRAs.

The variables not mentioned in the above paragraph were found to have coefficients that were statistically insignificant. That is, they have no measurable impact on the fire risk.

In his report, Davies gives more detail of the modelling techniques he used than he does for the results he obtained. The original model used employed the Generalised Linear Model (GLM) methodology. The principle behind this technique is to draw a straight line through the plots of the dependent variable against each of the explanatory variables. The difference between each observed value of the dependent variable and the estimate predicted by the line is then measured. The line with the gradient and vertical axis intercept that minimises the differences between each of the observations and their corresponding estimates is then used in the analysis.

The GLM method assumes that the explanatory variables are independent of each other. But in reality, many of the variables will be related to other explanatory variables, eg FRAs with a high value for the benefit variable are likely to have a low value for the income variable.

In an attempt to allow for non-independence of some of the explanatory variables a 'step-wise' variable selection technique was used. With this method, only independent variables are initially included in the GLM model, and then each of the variables suspected of not being independent are entered individually into the model. The variables that improve the fit of the model (ie its predictions are the closest to the observed fire risks) are then permanently included in the model. Each of the remaining variables are then individually tried again, until none of the variables significantly improve the fit of the model. This avoids the situation of two variables attempting to account for the same influence on the dependent variable. However, this model is very sensitive to the order in which variables are permanently added.

The specification of the model (that is, the layout of the estimating equation) called for the value of the population variable to be replaced with the natural logarithm of its value, which is labelled in the report as logpop. Davies decided that the model would be likely to work better if proportionality between population and fire risk is assumed. (Note that he also estimated the model with a specification that did not involve logs, or an intercept term, but it resulted in a poorer fit of the data).

The initial investigation found the population variable to have a negative coefficient. In order to maintain proportionality, Davies only included the populations of large FRAs. He found that the population variable was too influential for small FRAs , so the value of the logpop variable was set to zero and the population term dropped out of the estimating equation for these FRAs.

Davies used an initial model that included only the logpop*, southern, and temperature variables, where logpop* is equal to logpop - 8.9 when logpop>8.9 (ie. when the population is larger than 7332), and equal to zero otherwise. Other explanatory variables were then added where appropriate, in a step-wise manner, until all significant variables were included in the model.

Davies then switched from the GLM approach to a variant called the Generalised Additive Model (GAM). The advantage of this model is that rather than fitting a straight line to the plots of the dependent variable against each of the explanatory variables, a curved line can be fitted, allowing a better fit.

Temperature was the only variable to improve the fit of the model when the GAM was introduced. Figure 12 (included in appendix F) shows how the curve for this variable can be approximated by a straight line with a kink at about 10 degrees.

The drawback of the GAM is that it is difficult to interpret the results of the model. For this reason, Davies decided to modify the temperature variable. By fitting a straight line to the plot at temperatures above 10°C, he could use a GLM model, but still gain an increase in the accuracy of the model compared to the previous GLM model. Thus, the temperature variable was replaced with temperature*, where temperature* equals the actual temperature value when temperature>10°C, but temperature* equals 10°C when actual temperature is less than 10°C.

Table 4 (included in appendix F) shows the results of following the step-wise procedure in a GLM model, with the logpop and temperature variables replaced by logpop* and temperature*. The Resid. Dev column shows the residual deviance after

each variable is sequentially added to the model. This is a measure of the accuracy of the model. If the residual deviance value is equal to the Resid. Df (residual degrees of freedom) value, then the model would be 100 percent accurate. The F Value column shows the degree of significance of each of the variables. The higher this number, the more reliable the influence of the variable is on the dependent variable.

Table 5 displays the values of the coefficients for each of the significant explanatory variables. This table is the best representation of the results. Identifying these coefficients satisfies the first objective of the Davies paper. Table 5 has been reproduced below as Table 8-1.

**Table 8-1: Estimated coefficients of the terms included in the model (Table 5, Davies, 1994a)**

| | Value | Std. Error | t value |
|---|---|---|---|
| (Intercept) | -4.735 | 0.382 | -12.4 |
| logpop* | -0.175 | 0.033 | -5.3 |
| southern | 0.601 | 0.078 | 7.8 |
| temperature* | -0.106 | 0.012 | -8.5 |
| owned | -0.013 | 0.002 | -6.7 |
| benefit | 0.077 | 0.009 | 9.0 |
| income | 0.061 | 0.012 | 5.1 |
| Pacific Island | 0.014 | 0.003 | 4.8 |
| occupancy | -0.305 | 0.072 | -4.2 |

The coefficients can be easily interpreted due to the exponential specification of the model. This specification enables the coefficients to measure the elasticities of the explanatory variables (the degree of responsiveness of the dependent variable to changes in the explanatory variables). For example, the coefficient on the occupancy variable is -0.305. If occupancy is increased by ten percent, then the fire risk will be reduced by 3.05 percent (10 x -0.305).

The larger the absolute value of the coefficient, the more responsive the fire risk is to changes in that variable. A policy to reduce fire risk is likely to be more effective if it targets variables with large coefficients (in absolute value terms), depending on the relative cost and practicality of changing the variable.

Table 8-2 shows the effect a favourable ten percent change in the variables would have on the fire risk.. The variables are listed in order of the magnitude of their elasticities, implying that a ten percent change in the top variables will have more impact on fire risk than a ten percent change in the variables lower down the table.

**Table 8-2: The effect on the fire risk a favourable ten percent change in the variables make.**

| Variable | Coefficient | Change | Impact on fire risk of a favourable ten percent change |
|---|---|---|---|
| occupancy | -0.305 | +10% | -3.05 |
| logpop* | -0.175 | +10% | -1.75 |
| benefit | 0.077 | -10% | -0.77 |
| income | 0.061 | -10% | -0.61 |
| Pacific Island | 0.014 | -10% | -0.14 |
| owned | -0.013 | +10% | -0.13 |

Note that the intercept term and the southern and temperature* variables have been omitted, as these influences cannot be changed.

The residual is the actual observed value minus the fitted estimate, divided by the square root of the fitted value. FRAs with a residual with an absolute value greater than two are considered to be outliers. Table 6 (included in appendix F) identifies these FRAs. These outliers occur either because of deficiencies in the model, or because these FRAs have special circumstances that have caused them to experience a number of fires out of line with their fire risks. The third objective of the study was to identify outliers.

As an alternative to the step-wise procedure used above, Davies tried another approach that attempts to allow for relationships between some of the explanatory variables. This is the factor analysis components method.

The first step for this technique is to identify which explanatory variables are related to each other. Table 1 (included in appendix F) in part one of the paper displays the pair-wise correlations between the variables. The higher the value of the correlation, the more closely related the variables are. From Table 1, Davies identified four subsets

of the variables. Under 10, over 69, and occupancy were related, as were income and unqualified. Benefit and unemployed were related, while owned did not appear to be related to any of the other explanatory variables. Each of these groupings are referred to as factors, ie. factor 1, factor 2, factor 3, and factor 4. Figure 8 (included in appendix F) gives a graphical indication of the pair-wise correlations. The more distinct the trend in each diagram, the more closely correlated the two variables involved are.

Several of the variables mentioned at the beginning of this section were not included in the estimation of the factor analysis model. It is possible that some of these variables were initially excluded as a consequence of being related to other variables that have been included in the previous GLM model.

Table 8 (included in appendix F) shows the results of the step-wise estimation of this model. Factor 4 represents ownership, factor 3 represents unemployment and benefit, factor 2 represents no qualification and low income, and factor 1 represents occupancy and under 10. The residual variance for this model is slightly greater than the previous GLM model, so the factor analysis approach provides a less accurate estimate of fire risks, and no further analysis was attempted by Davies.

Using the GLM model estimated earlier, Davies continued his analysis of FRA fire risks. Tables 12 and 13 (included in appendix F) indicate the effect of each variable on each individual FRA. The two right hand columns show the comparison between the fitted and actual occurrences of fires. The product column shows the relative fire risk of the FRA. This was the second objective of the paper. FRAs with a product value greater than one have a relatively high fire risk, while a product value less than one indicates an FRA with a relatively low fire risk. The Whakapapa FRA was estimated to have the highest fire risk of the FRAs, but Davies admits that this result seems to be due to a statistical anomaly.

Part one of the study finishes with estimates of the reductions in fire risk that could be expected to be achieved by manipulating the variables. This gives a guide to what variables any fire prevention campaign should focus on. Some of these variables would be easier to alter than others, while some are impossible to influence, such as the southern variable and temperature. For example, if temperature could be changed, and all the FRAs with a temperature less than 14°C were increased up to 14°C, then 15% of New Zealand residential fires would theoretically be avoided.

Figure 20 (included in appendix F) displays this information for each of the variables with a range of values and predicted reductions in fire risk for each. Davies warns that for extreme values of the variables, the diagrams become less robust.

Table 8-3 summarises the conclusions drawn by Davies. It shows the percentage reduction in the country-wide fire risk that would result if the fire risk of FRAs with extreme values of the variables were improved to match the fire risk of FRAs with moderate values for the variables. The middle column defines the values of the variables that would be considered to be moderate. If the fire risks of the FRAs with extreme variable values were reduced to the risk of the FRAs with the moderate variable values, then the likely reductions in country-wide fire risk that would result are indicated in the right hand column.

**Table 8-3: Conclusions made by Davies regarding the effect on fire risk of various variables.**

| Variable | Target value of variable | Percentage reduction in country-wide fire risk |
|---|---|---|
| Population | Fire risk of 'smaller' FRAs reduced to the level of 'larger' FRAs | 3% |
| Southern | Fire risk of southern FRAs reduced to level of non-southern FRAs | 2% |
| Temperature | Fire risk of FRAs with an average temperature below 14 degrees is reduced to the level of FRAs with average temperatures of at least 14 degrees | 15% |
| Owned | Fire risk of FRAs with a home ownership rate below 85% is reduced to the level of FRAs with a home ownership rate of 85% | 15% |
| Benefit | Fire risk of FRAs with a benefit rate greater than 1 % is reduced to the level of FRAs with a benefit rate of 1% | 42% |
| Income | Fire risk of FRAs with an average income greater than $12,000 is reduced to the level of FRAs with an average income of $12,000 | 21% |
| Pacific Island | Fire risk of FRAs with a Pacific Island population is reduced to the level of FRAs without a Pacific Island population | 6% |
| Occupancy | Fire risk of FRAs with average occupancy less than 3.5 people is reduced to the level of FRAs with an average occupancy of 3.5 people | 20% |
| Total | Fire risk of the most risky 20% of the FRAs is reduced to the risk of the FRA on the border between the 20% and the rest of the FRAs | 23% |

Davies concludes that the explanatory variables with the most influence are benefit, owned, temperature and income. According to Davies, the occupancy variable was not included in this list "because it is not at all clear what it means".

### 8.2.2 Part 2

Part one of the Davies paper identifies the community characteristics associated with fires. Part two then uses these variables and attempts to identify any relationships between the variables and the describing features of the fires (ie the area of fire origin, the equipment involved in ignition, the form of heat of ignition, etc). Davies then goes on to relate the variables from part one to sub-categories of each of the describing features. For example, he shows that in FRAs with low values of the temperature

variable (which causes a higher fire risk), heating is the most common sub-category of the equipment involved in ignition.

The methodology Davies used is not discussed in this part of the paper, instead only summaries of the results are given. These results have been further summarised and included in the following tables.

The first set of tables show the sub-categories involved in each describing feature for each of the variables recognised in Part one. The sub-categories in the right hand column are deemed to be significant, with "also...." denoting sub-categories that have a relationship with the variable, but of weaker significance. A dash (-) indicates that no relationships were mentioned by Davies. Note, some sub-categories have been combined. The FIRS coding that correspond to the sub-categories used by Davies are listed in Table 8-19 For a definition of these coding refer to appendix A.

It is to be noted that Davies also looked at the 'most flame' field and 'flame travel' field. These however have not been summarised in this research report as they have not been discussed in the earlier sections.

**Table 8-4 Temperature**

| Describing Feature | Sub-category |
|---|---|
| Equipment involved in ignition | heating, appliances |
| Ignition factor | installation deficiencies, combustibles and heat sources too close together, also other, incendiary, failure, operating |
| Area of origin | living areas, storage areas, kitchen |
| Heat source | other, sparks, wiring/electrical |
| Type of material first ignited | gas/liquid, timber, fabric |
| Form of material first ignited | all |

The lower the average temperature the higher the fire risk. It follows from this that there is a strong relationship when the fire is associated with heating (Davies, 1994b)

**Table 8-5 Ownership**

| Describing Feature | Sub-category |
|---|---|
| Equipment involved in ignition | none |
| Ignition factor (cause) | incendiary, abandoned heat source, misuse |
| Area of origin | other, living, bedroom, kitchen |
| Heat source | smoking, matches, also sparks |
| Type of material first ignited | other, fat/oil, other |
| Form of material first ignited | other, cooking, contents, structure |

The higher the rate of home ownership the lower the fire risk. The relationship is stronger where people have control over the fire risk (Davies, 1994b).

**Table 8-6 Benefit**

| Describing Feature | Sub-category |
|---|---|
| Equipment involved in ignition | - |
| Ignition factor (cause) | children. also possibly incendiary |
| Area of origin | - |
| Heat source | - |
| Type of material first ignited | - |
| Form of material first ignited | - |

Overall the higher the percentage of people receiving a benefit the higher the fire risk (Davies, 1994b).

**Table 8-7 Income**

| Describing Feature | Sub-category |
|---|---|
| Equipment involved in ignition | wiring, appliance, cooking |
| Ignition factor (cause) | all except incendiary |
| Area of origin | all |
| Heat source | wiring, electrical |
| Type of material first ignited | plastic, fat/oil, fabric |
| Form of material first ignited | other, plastic |

Davies states that the higher the average income the higher the fire risk. But in effect the lower income population also experience a greater fire risk, and is better modelled with percentage receiving a benefit. An explanation for the higher income people having a higher fire risk is that they may have more equipment, thus giving more opportunity for fire (Davies, 1994b),

**Table 8-8 Pacific Island**

| Describing Feature | Sub-category |
|---|---|
| Equipment involved in ignition | cooking, appliance |
| Ignition factor (cause) | operating |
| Area of origin | - |
| Heat source | wiring, electrical, smoking, matches |
| Type of material first ignited | - |
| Form of material first ignited | equipment, contents, cooking |

In general the higher the percent of Pacific Island people in the community, the higher the fire risk is. The relationship is however mentioned to not be too strong (Davies, 1994b).

**Table 8-9 Population**

| Describing Feature | Sub-category |
|---|---|
| Equipment involved in ignition | heating, wiring |
| Ignition factor (cause) | other, installation |
| Area of origin | other, structure |
| Heat source | sparks, other |
| Type of material first ignited | other, timber, and is negatively related to fat/oil |
| Form of material first ignited | structure, other, and is negatively related to cooking |

The fire risk per person is larger for smaller FRAs. A reason stated for this could be that in a smaller FRA the houses are more isolated, hence maybe taking longer to notice a fire, and additionally the response time by the Fire Service may be longer (Davies, 1994b).

No definitive results were found for the occupancy or southern variables.

The next set of tables are similar to those above, except they show the variables from Part one that are related to various sub-categories of fires. A separate table is shown for each describing feature.

FRAs with relatively extreme values of the variables in the right hand column of the tables are more prone to the types of fires shown in the left hand column. The variables in the right hand column are only included for the subcategories where the variables are statistically significant. The plus sign (+) shows which variables have a

positive impact on the risk of fire of that particular sub-category occurring, while the minus sign (-) denotes variables that reduces the fire risk.

Note that it is possible for more than one variable to account for only one influence on the fire risk.

**Table 8-10 Equipment involved in ignition**

| Sub-category | Variable |
|---|---|
| None | (+) southern, benefit, Pacific Island; (-) temperature, owned, occupancy |
| Appliance | (+) benefit, Pacific Island; (-) temperature, owned, occupancy |
| Wiring | (+) benefit, income; (-) population |
| Heating | (+) southern; (-) population, temperature |
| Cooking | (+) southern, benefit, income, Pacific Island; (-) temperature |

**Table 8-11 Ignition factor**

| Sub-category | Variable |
|---|---|
| Other | (+) benefit; (-) population, temperature, owned, Pacific Island |
| Installation | (+) benefit; (-) population, temperature, |
| Failure | (+) southern, income; (-) population, temperature |
| Combustible | (+) southern, benefit; (-) temperature, occupancy |
| Operating | (+) southern, benefit, Pacific Island |
| Children | (+) benefit |
| Misuse | (+) southern, benefit; (-) owned |
| Abandoned | (-) owned |
| Incendiary | (+) southern, benefit; (-) temperature, owned |

**Table 8-12 Area of origin**

| Sub-category | Variable |
|---|---|
| Other | (+) benefit; (-) population, owned |
| Structure | (+) benefit; (-) population, occupancy |
| Bedroom | (+) benefit, Pacific Island; (-) temperature, owned |
| Kitchen | (+) southern, benefit, income, Pacific Island; (-) temperature |
| Storage | (+) benefit; (-) temperature |
| Living | (+) southern, benefit, income; (-) population, temperature, owned |

**Table 8-13 Form of heat**

| Sub-category | Variable |
|---|---|
| Other | (+) benefit; (-) population, temperature, owned |
| Smoking material | (+) southern, benefit, Pacific Island; (-)owned |
| Wiring/electrical | (+) southern, benefit, income Pacific Island; (-) temperature, occupancy |
| sparks | (+) southern, benefit; (-) population, temperature, owned |

**Table 8-14 Material type**

| Sub-category | Variable |
|---|---|
| Other | (+) benefit; (-) population, temperature, owned |
| Gas/liquid | (-) temperature |
| Plastic | (+) southern, income, Pacific Island |
| Wood/paper | (+) southern, benefit, Pacific Island |
| Fabric | (+) southern, benefit, income, Pacific Island; (-) temperature, owned |
| Timber | (+) southern, benefit; (-) population, owned, occupancy |
| Fat/oil | (+) population, southern, benefit, income; (-) owned |

**Table 8-15 Material form**

| Sub-category | Variable |
|---|---|
| Other | (+) southern, benefit, income; (-) population, temperature, owned |
| Structure | (+) southern, benefit; (-) population, temperature, owned, occupancy |
| Contents | (+) southern, benefit, income, Pacific Island; (-) temperature, owned, occupancy |
| Equipment | (+) southern, Pacific Island; (-) temperature, occupancy |
| Cooking | (+) population, southern, benefit, income, Pacific Island; (-) temperature, owned |

**Table 8-16 Monthly Quarter**

| Sub-category | Variable |
|---|---|
| Oct, Nov, Dec | (+) southern, benefit, income; (-) temperature, owned |
| Jul, Aug. Sep | (+) southern, benefit, Pacific Island; (-) population, temperature, owned, occupancy |
| Apr, May, Jun | (+) southern, benefit; (-) population, temperature, owned |
| Jan, Feb, Mar | (+) southern, benefit, Pacific Island; (-) population, owned, occupancy |

**Table 8-17 Weekday**

| Sub-category | Variable |
|---|---|
| Sat | (-) temperature, owned |
| Fri | (+) benefit, Pacific Island; (-) temperature |
| Thur | (+) southern, benefit; (-) temperature |
| Wed | (+) southern, benefit, income; (-) temperature |
| Tue | (+) benefit; (-) temperature, owned |
| Mon | (+) southern, benefit; (-) population, temperature, owned |
| Sun | (+) southern, benefit, income; (-) population, temperature, owned |

**Table 8-18 Time of day**

| Sub-category | Variable |
|---|---|
| Evening | (+) southern, benefit, income; (-) population, temperature, owned |
| Late afternoon | (+) southern, income, Pacific Island; (-) temperature |
| Early afternoon | (+) southern, Pacific Island; (-) temperature |
| Morning | (+) southern, benefit; (-) temperature, owned |
| Early | (-) temperature, owned |
| Night | (+) southern, benefit, (-) population, temperature, benefit |

**Table 8-19: The FIRS coding Davies categories incorporate.**

| Davies Classification | FIRS Coding |
|---|---|
| **Area of fire origin** | |
| living | 01-17, 23, 25-29 |
| bedroom | 21-22 |
| kitchen | 24 |
| storage | 41-49 |
| structure | 71-79 |
| other | 0, 51-69, 81-99 |
| **Equipment involved** | |
| appliance | 101-105, 1200-1252, 3000-3322, 5000-9700, 9900 |
| none | 0, 9800 |
| heating | 1000-1199, 1311-1899, |
| cooking | 2000-2712 |
| wiring | 4000-4899 |
| **Form of heat** | |
| sparks | 0-29, 43 |
| wiring/electrical | 30-39, 44, 46-47 |
| smokers materials | 60-69 |
| other | 40-42, 45, 49-59, 71-99 |

**Table 8-20: The FIRS coding Davies categories incorporate, continued.**

| **Material type** | |
|---|---|
| gas/liquid | 100-261, 299 |
| fat/oil | 271, 311 |
| plastic | 400-499 |
| wood/paper | 600-621, 632-699 |
| fabric | 700-799 |
| timber | 631 |
| other | 0-82, 300, 321-371, 500-599, 800-999 |

| **Material form** | |
|---|---|
| structure | 100-199 |
| contents | 200-599 |
| equipment | 600-699 |
| cooking | 761 |
| other | 0, 700-751, 771-999 |

| **Ignition factor** | |
|---|---|
| incendiary | 11-21 |
| misuse | 30, 32-34, 37-45, 47, 49 |
| abandon | 31 |
| combust | 35, 46 |
| children | 36, 48 |
| failure | 50-59 |
| install | 60-69 |
| operating | 70-79 |
| other | 80-99 |

# 9. Recommended Improvements to FIRS

## 9.1 Interaction with Coroners

An area that could improve with the FIRS recording system is by the Fire Service being more interactive with the Coroner. By doing this the accuracy of many of the FIRS fields will be dramatically increased. Fields which will be improved are:

1) Injury/Death; as it will then record all the cases where people die after the fire incident due to their injuries as a death instead of an injury.

2) Condition Before Injury; as it will then record cases where the person was impaired by drugs and or alcohol. Currently the use of this coding depends on the judgement of the fire officer filling in the form. When the victim is dead it is impossible to tell if they were impaired, without having a Coroners investigation.

3) Nature of Injury; as it will ascertain the correct form of death. At present the nature of injury resulting in death is based on the judgement of the fire officer filling in the form. This can then result in cases where the victim may have died before the fire (due to non-fire related conditions) being recorded as a burns or smoke inhalation victim.

4) Age of victim; at present the age of the victim entered in the FIRS database is often a guess on behalf of the officer filling in the report. By referring to medical records the exact age can be determined and then this field will be accurate and useful to future researchers. (This problem will however be solved with the introduction of the new database that incorporates the MOH database which does record the victims date of birth)

## 9.2 Default Date of Birth

As mentioned in section 9.1 the field 'age of victim' in the FIRS database is entered based on an estimate made by the fire officer filling in the report, or if the victim can speak, on the age quoted by the victim. This is not the only fault with the age of victim category. Another fault with the field is that the FIRS database has a year 1900 date of birth default setting in the age field for any null entries. This means that if an incident form has the age of the victim missing, then upon entry into the FIRS computer database the victim's age becomes that of the year the incident occurred (ie if the incident occurred in 1991, then the age of the victim will be listed as being 91).

With the new database system the Fire Service intends to adopt the default setting should be removed, and in its place a macro placed that will not allow entry of a null field. With the collaboration with the MOH database there should no longer be unknown date of births and therefore a proper date of birth can be entered for each victim. The accuracy of the age of victim field will be vastly increased if this is performed.

## 9.3 Computer Recording

An improvement to the accuracy of the FIRS data may be obtained from adopting a computer recording system like the one developed in Canada. This system is called COFIRES™ and is a computerised fire incident reporting system, developed by the Institute for Research in Construction (IRC) in partnership with the Department of National Defence (DND). It is a PC-based program running in Windows that allows filing, storage and retrieval of reports for all types of incidents (IRC, 1996).

If a computer programme like this is adopted in New Zealand it would possibly mean that a laptop computer would be carried in the fire appliance for filling in the report at the scene. In the computer programme it would be ideal to have pull down menus for relevant coding for each field to be entered. It would also be beneficial to have the

programme automatically prompt the reporter for all the relevant entries that need to be made for a particular type of incident.

With such a computer programme the time and ease of filling in an incident form would be increased. The accuracy would be increased as there would be no chance of missing out fields. Additionally the programme may stop any instances of 'short-cutting' the incident report form.

# 10. Conclusions

## 10.1 Key Features

In this study the key features are:

- Domestic properties were involved in more than one fifth (21%) of all the fire incidents that occurred in New Zealand over the period 1986 to 1994. A total of 42009 domestic fires occurred in the nine year period. This is an average or 4668 a year.

- Domestic fires resulted in the largest proportion of civilian fire injuries (65.5%) and fire fatalities (58.2%) than any other type of fire in the same nine year period. A total of 1115 civilians were injured in domestic fires over the nine years. This is an average of 124 a year. Likewise a total of 170 civilians were killed in domestic fires, or an average of 19 a year.

- People are more susceptible to injury or death from domestic fires in the early hours of the morning when they are more likely to be asleep.

- Domestic fires on average (over 1986-1994) were more frequent in the weekends, peaking in number on Saturdays. The number of injuries and fatalities however were more frequent on Sundays.

- For domestic fires resulting in injury: the most common area of fire origin is the kitchen; the most common equipment involved in ignition is no equipment followed by ovens and stovetops; the commonest form of heat of ignition is heat from properly operating electrical equipment; the commonest material type ignited is fabric and textiles, closely followed by fat and grease and combustible liquids (with a flash point less than 61°C) such as cooking oil; the commonest material form

ignited are cooking materials; and the commonest ignition factor is leaving equipment unattended. A scenario likely to explain this is leaving food unattended on a stovetop or in an oven which then heats to a level which causes ignition.

- For domestic fires resulting in death: the commonest area of fire origin is the bedroom; the commonest equipment involved in ignition is no equipment followed by portable heaters; the commonest form of heat of ignition is smoking materials followed by heat from properly operating electrical equipment; the commonest material type ignited is fabric and textiles followed by multiple material types; the commonest material form ignited is bedding; and the commonest ignition factor is falling asleep (which includes instances where the person was smoking prior to sleep) and abandoned heat sources. A scenario for this may be people smoking in bed falling asleep, and the cigarette is not disposed of correctly and consequently ignites the persons bedding.

- Smoke alarms have had a beneficial effect in reducing the number of domestic fire deaths and domestic fires requiring the attendance of fire departments in the United States. Unfortunately due to insufficient data an analysis on their effectiveness in New Zealand can not be performed.

- A review of the legislation of smoke alarms in New Zealand should be undertaken as it is believed that with their installation into domestic properties the number of fire deaths and injuries would be significantly reduced (especially of those that are sleeping at the time of fire outbreak).

- The socio-economic variables that have the greatest influence on the fire incidence rate in New Zealand are the percentage of the population receiving a benefit, the percentage of owner-occupied houses, the temperature of the region, and the median income of households.

- Certain procedures involved in the recording of data in the New Zealand FIRS should be reviewed and improvements made as detailed in Chapter 9.

## 10.2 Future Research

Areas that may be investigated in future research into the domestic fire hazard in New Zealand may be:

- Investigate countries overseas to see if their government or fire service has adopted any practices that would benefit the New Zealand cause.

- A cost benefit analysis could be carried out on the installation of smoke detectors in all or only new domestic properties in order to ascertain their financial benefits.

- A study may be able to be carried out in five or so years time that can use the FIRS data from 1995 onwards to take into the account the occupancy field that was introduced into the coding system in 1995. A one on one investigation looking at the features of the fires and casualties could be carried out to help decide why rental properties are at greater risk and what measures may be taken to make these occupancies safer.

- More cross-queries can be run in the Access database to correlate other features such as the age of casualties versus time, and the features of the fires versus the age of casualties. This may then give a better understanding of the casualties actions leading up to the fire. This may then give the Fire Service a better insight into where they need to concentrate their efforts to reduce the fire hazard in New Zealand.

- An investigation into the effects of alcohol and smoking on the fire incidence rate could be undertaken, and the identification of the more at risk population of New Zealand be made and targeted for fire safety.

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# Appendix A

## FIRS Codes and Descriptions for Fire and Casualty Features:

# Area of Fire Origin

| CODE | DESCRIPTION |
|---|---|
| 0 | Non-recorded |
| **0?** | **Means of Egress** |
| 01 | Hallway or corridor |
| 02 | Exterior stairway and fire escapes |
| 03 | Interior stairway |
| 04 | Escalator |
| 05 | Lobby or entrance way |
| 09 | Means of egress not classified |
| **1?** | **Assembly or Sales Area** |
| 11 | Large assembly area with fixed seats (greater than 100 persons) |
| 12 | Large assembly area with no fixed seats (greater than 100 persons) |
| 13 | Small assembly area with or without fixed seats (less than 100 persons) |
| 14 | Lounge room or sitting room |
| 15 | Sales or showroom area |
| 16 | Library |
| 17 | Swimming pool |
| 19 | Assembly or sales areas not classified |
| **2?** | **Living Areas** |
| 21 | Bedroom for less than 5 persons |
| 22 | Bedroom for more than 5 persons |
| 23 | Dining area |
| 24 | Kitchen or cooking area |
| 25 | Bathroom or toilet |
| 26 | Laundry room or wash house |
| 27 | Office |
| 28 | Personal service area |
| 29 | Living areas not classified |
| **3?** | **Technical Areas** |
| 31 | Laboratory |
| 32 | Printing or photographic room |
| 34 | Operating theatres or recovery rooms |
| 35 | Electronic equipment room |
| 37 | Projection room or stage light and spotlight areas |
| 38 | Process or manufacturing area |
| 39 | Function areas not classified |
| **4?** | **Storage Areas** |
| 41 | Product storage area |
| 42 | Wardrobes or cupboard |
| 43 | Supply storage room or tool rooms |
| 44 | Records storage room or vault |
| 46 | Rubbish area or container or chute |
| 47 | Garage or carport or vehicle storage area |
| 49 | Storage areas not classified |
| **5?** | **Service Facilities** |
| 51 | Elevator or dumbwaiter or shaft areas |

| CODE | DESCRIPTION |
|---|---|
| 52 | Utility shaft |
| 53 | Light well |
| 54 | Chute (excluding rubbish chutes) |
| 55 | Duct |
| 56 | Display window |
| 57 | Chimney (with fire confined to it) |
| 58 | Conveyor |
| 59 | Service facilities not classified |
| | |
| **6?** | **Service or Equipment Areas** |
| 61 | Machinery room or pump room |
| 62 | Heating equipment room or area or water heater area |
| 63 | Switchgear area or transformer vault |
| 64 | Incinerator room or area |
| 65 | Maintenance shop or area |
| 67 | Enclosure with pressurised air |
| 68 | Enclosure with enriched oxygen atmosphere |
| 69 | Service or equipment areas not classified |
| | |
| **7?** | **Structural Areas** |
| 71 | Crawl space or substructure space |
| 72 | Exterior balcony or open porch |
| 73 | Ceiling and floor assembly |
| 74 | Ceiling and roof assembly |
| 75 | Wall assembly or concealed wall space |
| 76 | Exterior wall surface |
| 77 | Exterior roof surface |
| 78 | Awning |
| 79 | Structural areas not classified |
| | |
| **8?** | **Transportation or Vehicle Areas** |
| 81 | Passenger area of transportation equipment |
| 82 | Boot or load carrying area of transportation equipment |
| 83 | Engine area or running gear or wheel area of transportation equipment |
| 84 | Fuel tank or line of transportation equipment |
| 85 | Operating or control area of transportation equipment |
| 89 | Transportation or vehicle areas not classified |
| | |
| **9?** | **Other Area of Origin** |
| 91 | On or near railway right of way or embankment |
| 92 | On or near highway or public way or street or parking lot |
| 93 | Court or terrace or patio or conservatories |
| 94 | Lawn or field or open area |
| 95 | Wildland area or woods |
| 96 | Area under construction or major renovation |
| 97 | Multiple areas of origin |
| 98 | Vacant structural area with no current use |
| 99 | Area of fire origin not classified |

# Equipment Involved in Ignition

| CODE | DESCRIPTION |
|---|---|
| 0 | Non-recorded |
| **0???** | **VEHICLES** |
| **01??** | **Road Transport Vehicles** |
| 0101 | Passenger car |
| 0105 | Motor home |
| 0199 | Road vehicle not classified |
| **04??** | **Home Garden Vehicles** |
| 0401 | Electric lawn mower |
| 0402 | Petrol lawn mower |
| 0403 | Garden Tractor |
| **05??** | **Recreational Vehicles** |
| 0599 | Recreational vehicle not classified |
| **1???** | **HEATING SYSTEMS** |
| **11??** | **Central Heating Units** |
| 1100 | Heating system; insufficient information to classify further |
| 1111 | Central heating unit: Electric |
| 1121 | Central heating unit: Gas fuelled |
| 1131 | Central heating unit: Solid fuelled |
| 1141 | Central heating unit: Oil or diesel fuelled |
| 1191 | Central heating unit: Fuel type not classified |
| **12??** | **Water Heaters** |
| 1200 | Water heater; insufficient information to classify further |
| 1211 | Water heater: Electric |
| 1221 | Water heater: Gas fuelled |
| 1231 | Water heater: Solid fuelled |
| 1241 | Water heater: Oil or diesel fuelled |
| 1251 | Spa pool water heater: Electric |
| 1252 | Spa pool water heater: Gas fuelled |
| 1299 | Water heater: fuel type not classified |
| **13??** | **Fixed, Stationary, Local Heating Units** |
| 1311 | Wall mounted heater: Electric fan |
| 1312 | Wall mounted heater: Electric radiant bar |
| 1313 | Wall mounted heater: Electric convector |
| 1314 | Wall mounted heater: Bathroom towel rail |
| 1315 | Wall mounted heater: Electric panel |
| 1317 | Wall mounted heater: Mains gas supply |
| 1318 | Wall mounted heater: L.P.G. |
| 1331 | Night-store heater: Electric |
| 1341 | Space heater: Electric |
| 1352 | Heater lamp: Electric |
| 1362 | Cupboard heater: Electric |
| 1399 | Fixed heating units not classified |

| CODE | DESCRIPTION |
|---|---|
| **14??** | **Indoor Fireplaces** |
| 1400 | Indoor fireplace; insufficient information to classify further |
| 1411 | Open in-built fireplace |
| 1421 | Front enclosed in-built fireplace |
| 1431 | Fireplace insert stove |
| 1441 | Free standing solid fuelled fireplace |
| 1499 | Indoor fireplaces not classified |
| **15??** | **Portable Local Heating Units** |
| 1500 | Portable heater: fuel type; insufficient information to classify further |
| 1511 | Portable heater: Electric fan |
| 1512 | Portable heater: Electric radiant bar |
| 1513 | Portable heater: Electric convector |
| 1514 | Portable heater: Electric oil-filled column |
| 1515 | Portable heater: Electric space heater |
| 1521 | Portable heater: L.P.G. |
| 1522 | Portable heater: gas-fuelled camping type |
| 1531 | Portable heater: Kerosene or oil |
| 1599 | Portable heater: Fuel type not classified |
| **16??** | **Chimney, Gas Vent Flue** |
| 1600 | Chimney construction; insufficient information to classify further |
| 1611 | Masonry chimney |
| 1621 | Factory built chimney |
| 1631 | Chimney serving factory-built fireplaces |
| 1641 | Gas vent |
| 1651 | Single wall metal chimney |
| 1699 | Chimney construction not classified |
| **17??** | **Chimney Connector, Vent Connection** |
| 1700 | Chimney connector or vent connection; insufficient information to classify further |
| 1711 | Solid fuel appliance connector, single wall |
| 1712 | Solid fuel appliance connector, double wall |
| 1721 | Gas vent connector, single wall |
| 1799 | Chimney connector or vent connection type not classified |
| **18??** | **Heat Transfer System** |
| 1800 | Heat transfer system; insufficient information to classify further |
| 1899 | Heat transfer system not classified |
| **10??** | **Heating Systems; Unclassified** |
| 1000 | Heating systems; insufficient information |
| 1099 | Heating systems not classified |
| **2???** | **COOKING EQUIPMENT** |
| **21??** | **Fixed, Stationary Cooktop Units, Rangetops** |
| 2100 | Stovetop: fuel type; insufficient information to classify further |
| 2101 | Stovetop: Electric |
| 2111 | Stovetop: Gas |
| 2112 | Stovetop: L.P.G. fuelled |
| 2121 | Stovetop: Solid fuel |
| 2131 | Stovetop: Liquid fuel |
| 2199 | Stovetop: Fuel type not classified |

| CODE | DESCRIPTION |
|---|---|
| **22??** | **Fixed, Stationary Oven** |
| 2200 | Fixed, stationary oven: fuel type; insufficient information to classify further |
| 2201 | Oven: Electric |
| 2211 | Oven: Mains gas |
| 2212 | Oven: L.P.G fuelled |
| 2221 | Oven: Solid fuelled |
| 2251 | Microwave oven |
| 2299 | Fixed, stationary oven not classified |
| **23??** | **Fixed, Stationary Food Warming Appliance** |
| 2300 | Fixed, food warming appliance; insufficient information to classify further |
| 2399 | Fixed, stationary food warmer appliance not classified |
| **24??** | **Deep-fat Fryer** |
| 2400 | Deep-fat fryer; insufficient information to classify further |
| 2411 | Fixed deep-fat fryer: Electric |
| 2412 | Fixed deep-fat fryer: Mains gas |
| 2413 | Fixed deep-fat fryer: L.P.G. |
| 2441 | Portable deep-fat fryer: Electric |
| 2499 | Deep-fat fryer not classified |
| **25??** | **Portable Cooking, Warming Unit** |
| 2500 | Portable cooking, warming unit; insufficient information to classify further |
| 2511 | Portable hot plate: Electric including electric frypan |
| 2512 | Toasted sandwich maker |
| 2513 | Mini oven: Electric |
| 2522 | Camp stove: Gas fuelled |
| 2531 | Toaster: Electric |
| 2542 | Crock pot: Electric |
| 2544 | Food mixer (beater) |
| 2545 | Food processor/wizz/blender |
| 2599 | Portable cooking, warming unit not classified |
| **26??** | **Open Fired Grill** |
| 2600 | Open fire grill; insufficient information to classify further |
| 2611 | Charcoal grill |
| 2631 | Barbecue grill: Electric |
| 2632 | Barbecue grill: Gas fuelled |
| 2633 | Barbecue grill: Solid fuelled |
| 2699 | Open fire grill not classified |
| **27??** | **Grease Hood, Duct** |
| 2700 | Grease hood or duct; insufficient information to classify further |
| 2711 | Lighting equipment in the cooking unit |
| 2712 | Venting equipment in the cooking unit |
| 2799 | Grease hood or duct not classified |
| **20??** | **Cooking Equipment; Unclassified** |
| 2000 | Cooking equipment; insufficient information to classify further |
| 2099 | Cooking equipment not classified |
| **3???** | **AIR CONDITIONING, REFRIGERATION EQUIPMENT** |
| **31??** | **Central Air Conditioning, Refrigeration Equipment** |
| 3100 | Air conditioning or refrigeration equipment; insufficient info. to classify further |
| 3102 | Refrigeration equipment |

| CODE | DESCRIPTION |
|---|---|
| **33??** | **Fixed, Stationary Local Refrigeration Unit** |
| 3300 | Fixed refrigeration unit; insufficient information to classify further |
| 3311 | Freezer: Commercial |
| 3312 | Freezer: Residential |
| 3322 | Fridge: Residential |
| **34??** | **Fixed, Stationary Local Air Conditioning Unit** |
| 3400 | Fixed air conditioning unit; insufficient information to classify further |
| **30??** | **Air Conditioning, Refrigeration Equipment; Unclassified** |
| 3000 | Air conditioning, refrigeration unit not classified |
| **4???** | **ELECTRICAL DISTRIBUTION EQUIPMENT** |
| **41??** | **Fixed Wiring** |
| 4100 | Termination, splice; insufficient information to classify further |
| 4101 | Overhead wire (supply authority) |
| 4102 | Overhead wire (consumer) |
| 4103 | Cables at mains point of entry |
| 4104 | Wire in metallic conduit for mains of entry conductor |
| 4107 | Sheathed cable - PVC |
| 4108 | Sheathed cable - TPS |
| 4111 | Wire in metallic conduit |
| 4112 | Wire in nonmetallic conduit |
| 4119 | Wire, cable not classified |
| 4121 | Copper wire termination, splice |
| **42??** | **Transformer and Associated Equipment** |
| 4200 | Transformer and associated equipment; insufficient information to classify further |
| 4201 | Control type transformer |
| 4202 | Distribution type transformer |
| 4203 | Low voltage transformer (not more than 50 volts) |
| 4204 | Overcurrent, disconnect equipment associated with a transformer |
| 4299 | Transformer and associated equipment; not classified |
| **43??** | **Meter, Meter Box** |
| 4300 | Meter, meter box; insufficient information to classify |
| 4301 | Meter |
| 4302 | Meter mounting equipment, meter box |
| 4399 | Meter, meter box not classified |
| **44??** | **Power Switch Gear, Overcurrent Protection Devices** |
| 4400 | Power switch gear, overcurrent protection devices; insufficient info to classify further |
| 4401 | Main switch |
| 4403 | Distribution panelboard |
| 4431 | Fuse type distribution panelboard |
| 4432 | Circuit breaker type panelboard |
| 4441 | Fuse |
| 4499 | Power switch gear, overcurrent protection devices not classified |
| **45??** | **Switch, Receptacle, Outlet** |
| 4500 | Switch, receptacle, outlet; insufficient information to classify further |
| 4501 | Wall type switch |
| 4502 | Receptacle, outlet |
| 4599 | Switch, receptacle, outlet not classified |

| CODE | DESCRIPTION |
|---|---|
| **46??** | **Lighting Fixtures** |
| 4600 | Lighting fixture, lampholder, ballast, sign; insufficient information to classify further |
| 4601 | Fluorescent lighting fixture |
| 4602 | Incandescent lighting fixture |
| 4603 | Lampholder |
| 4641 | Inside sign |
| 4642 | Outside sign |
| 4699 | Lighting fixture, lampholder, ballast, sign not classified |
| **47??** | **Cord, Plug** |
| 4700 | Cord, plug; insufficient information to classify further |
| 4701 | Cord on appliance |
| 4702 | Cord on portable lamp |
| 4703 | Extension cord used in place of permanent wiring |
| 4704 | Christmas tree wiring |
| 4705 | Properly used extension cord |
| 4706 | Plug |
| 4799 | Cord, plug not classified |
| **48??** | **Lamp, Light Bulb** |
| 4800 | Lamp (bulb); insufficient information to classify further |
| 4801 | Lighting lamp (bulb) |
| 4802 | Heating lamp (bulb) |
| 4803 | Fluorescent bulb |
| 4899 | Lamp (bulb) not classified |
| **40??** | **Electrical Distribution Equipment; Unclassified** |
| 4000 | Electrical distribution equipment; insufficient information to classify further |
| 4099 | Electrical distribution equipment not classified |
| **5???** | **APPLIANCES AND OTHER ELECTRICAL EQUIPMENT** |
| **51??** | **Televisions, Radios, Music Systems** |
| 5100 | Televisions, radios and music systems; insufficient information to classify further |
| 5101 | Television |
| 5102 | Radio |
| 5103 | Integrated stereo system |
| 5104 | Portable cassette and/or CD player (ghetto blaster) |
| 5105 | Video player |
| 5106 | Record player |
| 5108 | Amplifiers for musical instruments including sound systems |
| 5199 | Televisions, radios and musical systems not classified |
| **52??** | **Dryers** |
| 5200 | Dryer; insufficient information to classify further |
| 5201 | Clothes dryer: Commercial |
| 5202 | Clothes dryer: Residential |
| 5203 | Hair dryer: Electrical |
| 5204 | Hair dryer: Gas fuelled and |
| 5204[1] | Paint stripper: Hot air |
| 5205 | Paint stripper flame - fuel gas powered |
| 5299 | Dryer not classified |

[1] This is an error in the coding manual. The same code has been given for two separate entities.

| CODE | DESCRIPTION |
|---|---|
| **53??** | **Washing Machines** |
| 5300 | Washing machine; insufficient information to classify further |
| 5301 | Clothes washing machine: Commercial |
| 5302 | Clothes washing machine: Residential |
| 5321 | Dishwashing machine: Commercial |
| 5322 | Dishwashing machine: Residential |
| 5399 | Washing machine not classified |
| **54??** | **Floor Care Equipment** |
| 5400 | Floor care equipment; insufficient information to classify further |
| 5401 | Vacuum cleaner: air cleaner only |
| 5406 | Floor sanding machine |
| **55??** | **Separate Motor or Generator** |
| 5500 | Separate motor or generator; insufficient information to classify further |
| 5501 | Fractional h.p. motor |
| 5502 | 1 h.p. and over motor |
| 5599 | Separate motor or generator not classified |
| **56??** | **Hand Tools** |
| 5600 | Hand tools; insufficient information to classify further |
| 5602 | Drill |
| 5699 | Hand tools not classified |
| **57??** | **Portable Appliance Equipment Designed to Produce Controlled Heat** |
| 5700 | Portable heat control appliance equipment; insufficient information to classify further |
| 5701 | Electric blanket |
| 5702 | Waterbed heater pad |
| 5711 | Steam iron |
| 5712 | Iron - not steam |
| 5721 | Jug or kettle |
| 5799 | Portable heat control appliance equipment not classified |
| **58??** | **Portable Appliance Designed not to Produce Heat** |
| 5800 | Portable appliance designed not to produce heat; insufficient info. to classify further |
| 5801 | Electric razor or shaver |
| 5802 | Electric can opener |
| 5804 | Fan |
| 5805 | Electric clock or clock radio |
| 5811 | Waste disposal unit |
| 5899 | Portable appliance designed not to produce heat, not classified |
| **50??** | **Appliance and Other Electrical Equipment; Unclassified** |
| 5000 | Appliance equipment; insufficient information to classify further |
| 5099 | Appliance equipment not classified |
| **6???** | **SPECIAL EQUIPMENT** |
| **61??** | **Electronic Equipment** |
| 6100 | Electronic equipment; insufficient information to classify further |
| 6111 | Computer monitor |
| 6112 | Computer disk drive or CPU unit |
| 6199 | Electronic equipment not classified |
| **65??** | **Separate Pump or Compressor** |
| 6500 | Separate pump or compressor; insufficient information to classify further |

| CODE | DESCRIPTION |
|---|---|
| 6501 | Pump |
| **66??** | **Internal Combustion Engine** |
| 6600 | Internal combustion engine; insufficient information to classify further |
| 6609 | Vehicle fuel system |
| 6699 | Internal combustion engine not classified |
| **60??** | **Special Equipment; Unclassified** |
| 6000 | Special equipment; insufficient information to classify further |
| 6099 | Special equipment not classified |
| **7???** | **PROCESSING EQUIPMENT** |
| **71??** | **Furnace, Oven, Kiln** |
| 7100 | Furnace, oven or kiln; insufficient information to classify |
| 7102 | Furnace |
| 7103 | Kiln |
| **73??** | **Heat Treating Equipment** |
| 7302 | Furnace: heat treating |
| **74??** | **Working, Shaping Machinery** |
| 7400 | Working or shaping machines; insufficient information to classify further |
| 7403 | Grinding equipment |
| **76??** | **Painting Equipment** |
| 7600 | Painting equipment; insufficient information to classify further |
| **77??** | **Chemical Processing Equipment** |
| 7703 | Distilling equipment |
| **78??** | **Waste Recovery Equipment** |
| 7800 | Waste recovery equipment; insufficient information to classify further |
| **70??** | **Processing Equipment; Unclassified** |
| 7000 | Processing equipment; insufficient information to classify further |
| **8???** | **SERVICE, MAINTENANCE EQUIPMENT** |
| **81??** | **Incinerator** |
| 8100 | Incinerator; insufficient information to classify further |
| 8101 | Incinerator: Residential |
| **83??** | **Rectifier, Charger** |
| 8300 | Rectifier or charger; insufficient information to classify further |
| 8302 | Battery charger |
| **85??** | **Arc, Oil Lamp** |
| 8500 | Arc or oil lamps; insufficient information to classify further |
| 8501 | Gas mantle |
| **87??** | **Torch, Welder** |
| 8700 | Torch or welder; insufficient information to classify further |
| 8701 | Cutting torch |
| 8702 | Welding torch |
| 8703 | Plumbers torch |

| CODE | DESCRIPTION |
|---|---|
| 8705 | Arc welder |
| 8799 | Torch or welder not classified |
| **80??** | **Service, Maintenance Equipment; Unclassified** |
| 8000 | Service maintenance equipment; insufficient information to classify further |
| **9???** | **OTHER EQUIPMENT** |
| **91??** | **Power Saws** |
| 9101 | Chain saw |
| **93??** | **Power Transfer Equipment** |
| 9300 | Power transfer equipment; insufficient information to classify further |
| **94??** | **Electric Fencing** |
| 9401 | Electric fencing |
| **95??** | **Flammable Liquid Transfer Equipment** |
| 9500 | Flammable liquid transfer; equipment insufficient information to classify further |
| 9501 | Pipe or pipes |
| 9599 | Flammable liquid transfer equipment not classified |
| **96??** | **Hazardous Substances Transfer Equipment ( other than flammable liquids)** |
| 9600 | Hazardous substances transfer equipment; insufficient information to classify further |
| 9602 | Valve or valves |
| **9800** | **No equipment involved in ignition** |
| **9900** | **Equipment involved in ignition not classified** |

# Form of Heat of Ignition

| CODE | DESCRIPTION |
|---|---|
| 0 | Non-recorded |
| **0?** | **Heat, sparks, ember, flames from outside open fires** |
| 00 | Heat, sparks, etc from outside open fires, insufficient info. to classify further |
| 01 | Outside open fire for debris or waste disposal |
| 02 | Outside open fire for warming |
| 03 | Outside open fire for cooking |
| 04 | Outside open bonfire |
| 05 | Agricultural burns or land management burns, includes prescribed burning |
| 09 | Heat, sparks, ember or flames from outside open fires not classified |
| **1?** | **Heat from fuel-fired or fuel-powered equipment (gas or liquid fuel)** |
| 10 | Heat from fuel-fired or fuel-powered equipment insufficient info to classify further |
| 11 | Spark, ember, heat or flame from cutting torch operation (separating metals) |
| 12 | Spark, ember, heat or flame from welding torch operation (joining metals) |
| 13 | Spark, ember, heat or flame other than cutting/welding, includes blow torches etc |
| 14 | Spark, ember, flame escaping from gas fuelled equipment other than torch |
| 15 | Heat from gas fuelled equipment other than torch, includes pilots lights |
| 16 | Spark, ember, flame, escaping from liquid fuelled equipment includes exhaust carbon |
| 17 | Heat from liquid fuelled equipment, includes pilots lights, normal flames |
| 19 | Heat from fuel fired or fuel powered equipment not classified |
| **2?** | **Heat from fuel-fired or fuel-powered equipment (solid fuel)** |
| 20 | Heat from fuel-fired or fuel-powered equipment insufficient info to classify further |
| 21 | Spark, ember or flame escaping from wood or paper fuelled equipment |
| 22 | Heat from wood or paper fuelled equipment, includes chimneys, pilot lights |
| 23 | Spark, ember, flame escaping from coal or coke fuelled equipment, includes chimney |
| 24 | Heat from coal or coke fuelled equipment, includes chimneys and pilot lights |
| 25 | Spark, ember or flame escaping from other solid fuelled equipment |
| 26 | Heat from other solid fuelled equipment, includes chimneys, and pilot lights |
| 27 | Spark, ember, or flame, escaping from fuel-fired equipment, specific fuel not known |
| 28 | Heat from fuel-fired equipment: specific fuel not known |
| 29 | Heat from fuel-fired or fuel powered equipment not classified |
| **3?** | **Heat from electrical equipment arcing or overloaded** |
| 30 | Heat from electrical equipment arcing or overloaded, insufficient info to class. further |
| 31 | Water caused short-circuit arc |
| 32 | Short-circuit arc from mechanical damage |
| 33 | Short-circuit arc from defective, worn insulation |
| 34 | Unspecified short circuit arc |
| 35 | Arc from faulty contact, loose connection, broken conductor, broken powerlines |
| 36 | Arc, spark from operating equipment, switch or electric fence |
| 37 | Heat from overloaded equipment, includes wires and motors |
| 38 | Fluorescent light ballast |
| 39 | Heat from electrical equipment arcing or overloaded not classified |
| **4?** | **Heat from hot object** |
| 40 | Heat from hot object; insufficient information to classify further |
| 41 | Heat, spark, from friction includes overheated tyres |
| 42 | Molten, hot material, includes molten metal, hot forging and hot glass |

| CODE | DESCRIPTION |
|---|---|
| 43 | Hot ember ash, includes embers and ash discarded from solid fuel-fired equipment |
| 44 | Electric lamp, includes light bulbs |
| 45 | Rekindle, ignition |
| 46 | Heat from properly operating electrical equipment |
| 47 | Heat from improperly operating electrical equipment excludes overloaded equipment |
| 49 | Heat from hot object not classified |
| **5?** | **Heat from explosives or fireworks** |
| 50 | Heat from explosives or fireworks, insufficient information to classify further |
| 51 | Munition includes bombs, ammunition (not tracer which is 52) and military rockets |
| 53 | Blasting agent, primer cord, black powder fuse, includes fertilising agent |
| 54 | Fireworks, includes sparklers, paper caps, party poppers and fire crackers |
| 55 | Model and amateur rocket |
| 56 | Incendiary device includes Molotov cocktails |
| 59 | Heat from explosives or fireworks not classified |
| **6?** | **Heat from other open flame, sparks smoking materials** |
| 60 | Heat from other open flame, etc insufficient info to classify further |
| 61 | Cigarette |
| 62 | Cigar or pipe |
| 63 | Heat from undetermined smoking material |
| 64 | Match |
| 65 | Lighter (flame type) |
| 66 | Candle, or taper |
| 67 | Warning flare or fusee |
| 68 | Backfire from internal combustion engine, excludes sparks from an exhaust system |
| 69 | Heat from other open flame, sparks or smoking materials not classified |
| **7?** | **Heat from natural source** |
| 71 | Sun's heat, usually magnified through glass, bottles etc |
| 72 | Spontaneous ignition or chemical reaction |
| 73 | Lightning discharge |
| 74 | Static discharge, excludes electrical arcs or sparks |
| 79 | Heat from natural source not classified |
| **8?** | **Exposure fire; heat spreading from another unwanted or hostile fire** |
| 80 | Heat spreading from another unwanted fire; insufficient info to classify further |
| 81 | Heat from direct flame or convection currents |
| 82 | Radiated heat, excludes heat from exhaust systems or fuel fired or powered equipment |
| 83 | Heat from flying brand, ember or spark, excludes embers, from chimney igniting roof |
| 84 | Conducted heat |
| 89 | Heat spreading from another unwanted or hostile fire not classified |
| **9?** | **Other form of heat or ignition** |
| 97 | Multiple forms of heat of ignition |
| 99 | Form of heat of ignition not classified |

# Type of Material

| CODE | DESCRIPTION |
|---|---|
| 0 | Non-recorded |
| **0??** | **Vegetation naturally occurring** |
| 000 | Vegetation or naturally occurring; insufficient information to classify further |
| 011 | Grass |
| 021 | Leaves, needles, litter (vegetative) |
| 031 | Duff (the material between the leaf and/or needle cover and the material soil) |
| 041 | Peat |
| 051 | Live trees |
| 052 | Scrub and gorse |
| 061 | Snag (standing dead tree) |
| 082 | Rotten wood |
| 099 | Vegetation-naturally occurring not classified |
| **1??** | **Gas** |
| 100 | Gas; insufficient information to classify further |
| 111 | Natural gas includes reticulated natural gas and town gas. |
| 121 | Liquefied oxygen |
| 141 | L.P.G. |
| 151 | Anaesthetic gas |
| 161 | Acetylene |
| 199 | Gas not classified |
| **2??** | **Flammable, combustible liquid** |
| 200 | Flammable, combustible liquid, insufficient information to classify further |
| 221 | Highly flammable liquids (flash point below 23°C) |
| 231 | Petrol includes Avgas |
| 241 | Flammable liquid with a flash point between 23 and 61°C |
| 261 | Fuel oil includes diesel and auto gas oil |
| 271 | Combustible liquid with flash point greater than 61°C |
| 299 | Flammable combustible liquid not classified |
| **3??** | **Volatile Solid, Chemical** |
| 300 | Volatile solid chemical insufficient information to classify further |
| 311 | Fat or grease includes butter, tallow, margarine and lard |
| 321 | Grease (non food) includes petroleum jellies |
| 331 | Polish includes paraffin and wax |
| 341 | Adhesive, resin or tar includes glue, gelatine, kauri, asphalt, pitch and carbon |
| 361 | Combustible metal includes magnesium, titanium and zirconium |
| 371 | Solid chemical includes explosives |
| 399 | Volatile solid chemical not classified |
| **4??** | **Plastics** |
| 400 | Plastic, insufficient information to classify further |
| 411 | Rigid plastics; PVC includes floor tiles, guttering and drainage piping |
| 412 | Rigid plastics; ABS includes fridge linings (not insulation) and mouldings |
| 413 | Rigid plastics; perspex includes perspex plastic windows |
| 414 | Rigid plastics; polycarbonate includes safety screens |
| 419 | Rigid plastics; not classified above |
| 421 | Rigid foam plastics; polyurethane includes fridge insulation |
| 422 | Rigid foam plastics; polystyrene includes cool-store and domestic insulation |
| 429 | Rigid foam plastics not classified above |

| CODE | DESCRIPTION |
|---|---|
| 431 | Flexible plastic PVC includes electrical insulation |
| 439 | Flexible plastics not classified above |
| 441 | Flexible polyurethane foam found in furnishings and upholstery |
| 449 | Flexible foam plastics not classified above |
| 451 | Film plastics-paper thin plastics including polyethylene trash bags |
| 452 | Film plastic PVC includes shower curtains |
| 499 | Plastic not classified |
| **5??** | **Natural product** |
| 500 | Natural product insufficient information to classify further |
| 511 | Rubber, excludes synthetic rubbers (classified as plastics) |
| 521 | Cork |
| 531 | Leather |
| 541 | Hay or straw |
| 551 | Grain natural fibre (pre-process) includes feathers, felt, kapok, and hemp |
| 561 | Coal, coke, briquettes, peat |
| 571 | Food, or starch, excludes fat or grease |
| 581 | Tobacco |
| 599 | Natural product not classified |
| **6??** | **Wood or Paper (processed)** |
| 600 | Wood or paper (processed) insufficient information to classify further |
| 611 | Wood residue or shavings includes chips sawdust used as thermal insulation |
| 612 | Slash includes felled bush, pruned limbs from trees |
| 621 | Fuelled but unsawn wood |
| 631 | Sawn wood includes all finished timber |
| 632 | Round wood includes round posts, poles and piles, excludes logs |
| 633 | Logs, timber cut to predetermined lengths and sizes (used for export) |
| 641 | Plywood |
| 651 | Fibreboard, particleboard, and hardboard |
| 661 | Wood pulp |
| 671 | Paper untreated, includes untreated, uncoated paper, ground up processed paper |
| 672 | Paper treated, includes wax paper and tar paper |
| 681 | Cardboard |
| 699 | Wood paper (processed) not classified |
| **7??** | **Fabric, textile, fur** |
| 700 | Fabric, textile, fur insufficient information to classify further |
| 711 | Man-made fabric, fibre, finished goods, excludes rayons |
| 721 | Cotton, rayon, cotton fabric finished goods, includes canvases |
| 731 | Wool, wool mixture fabric, finished goods |
| 741 | Fur, silk, other fabric, finished goods |
| 751 | Wig |
| 761 | Human hair |
| 771 | Plastic coated fabric, includes plastic upholstery fabric and other vinyl fabrics |
| 799 | Fabric, textile fur not classified |
| **8??** | **Material compounded with oil** |
| 800 | Material compounded with oil insufficient information to classify further |
| 811 | Linoleum |
| 821 | Oilcloth |
| 841 | Waterproof canvas |
| 851 | Oily rags, includes waste material impregnated with oil |
| 861 | Asphalt treated material, excludes by-products of combustion, soot, carbon etc |
| 899 | Material compounded with oil not classified |

| CODE | DESCRIPTION |
|---|---|
| **9??** | **Other type of material** |
| 900 | Chaff |
| 911 | Mulch |
| 931 | Litter |
| 971 | Multiple types of material first ignited |
| 981 | Type of material not significant or not applicable |
| 999 | Type of material not classified |

# Form of Material

| CODE | DESCRIPTION |
|---|---|
| 0 | Non-recorded |
| **1??** | **Structural component or finish** |
| 100 | Structural component or finish; insufficient information to classify further |
| 111 | Exterior roof covering or surface or finish |
| 121 | Exterior sidewall covering or surface or finish |
| 131 | Exterior trim and accessories |
| 141 | Floor covering or surface |
| 151 | Interior wall covering |
| 161 | Ceiling covering or surface |
| 171 | Structural member or framing |
| 181 | Thermal or acoustical insulation within wall or partition or floor/ceiling space |
| 199 | Structural component or finish not classified |
| **2??** | **Furniture or Utensils** |
| 200 | Furniture or utensils; insufficient information to classify further |
| 211 | Upholstered sofa or chair or vehicle seats |
| 221 | Non-upholstered chair or bench |
| 231 | Cabinetry |
| 241 | Ironing board |
| 251 | Appliance housing or casing |
| 261 | Kitchen utensils |
| 299 | Furniture or utensils not classified |
| **3??** | **Soft goods and wearing apparel** |
| 300 | Soft goods or wearing apparel; insufficient information to classify further |
| 311 | Mattress or pillow |
| 321 | Bedding, blanket, sheet or comforter |
| 331 | Linen other than bedding |
| 341 | Wearing apparel not on a person |
| 351 | Wearing apparel on a person |
| 361 | Curtain, blind, drapery or tapestry |
| 371 | Goods not made up |
| 381 | Luggage |
| 399 | Soft goods and wearing apparel not classified |
| **4??** | **Adornment or Recreational Material** |
| 400 | Adornment or recreational material; insufficient information to classify further |
| 411 | Christmas tree |
| 421 | Decoration |
| 431 | Book |
| 441 | Magazine, newspaper or writing paper |
| 451 | Toy or game |
| 461 | Awning or canopy |
| 471 | Tarpaulin or tent |
| 499 | Adornment or recreational material not classified |
| **5??** | **Supplies or stock** |
| 500 | Supplies or stock; insufficient information to classify further |
| 511 | Box, carton or bag |
| 521 | Basket or barrel (includes rubbish bins) |
| 531 | Pallet or skid (not in use) |

| CODE | DESCRIPTION |
|---|---|
| 541 | Rope, cord, twine or string |
| 551 | Packing or wrapping material |
| 561 | Bale storage |
| 571 | Bulk storage |
| 581 | Cleaning supplies |
| 599 | Supplies or stock not classified |
| | |
| **6??** | **Power transfer equipment and fuel** |
| 600 | Power transfer equipment or fuel; insufficient information |
| 611 | Electrical wire or cable insulation [only used if no other material in immediate area] |
| 621 | Transformer |
| 631 | Conveyor belt, drive belt or V-belt |
| 641 | Tyre |
| 651 | Fuel |
| 661 | Pipe, duct, conduit or hose |
| 671 | Pipe, duct or conduit covering |
| 681 | Filter |
| 699 | Power transfer equipment or fuel not classified |
| | |
| **7??** | **General form** |
| 700 | Form of material; insufficient information to classify further |
| 711 | Agricultural product |
| 721 | Fence or pole |
| 731 | Fertiliser |
| 741 | Growing or natural form whether living or dead |
| 751 | Rubbish, garbage or waste |
| 761 | Cooking materials |
| 771 | Sign |
| 781 | Film or residue (includes soot and films which are a by-product of an operation) |
| 799 | Form of material not classified |
| | |
| **8??** | **Special form** |
| 800 | Form of material; insufficient information to classify further |
| 811 | Dust, fibre or lint |
| 821 | Pyrotechnics, explosives or fireworks |
| 831 | Atomised or vaporised liquid |
| 841 | Chips |
| 851 | Palletised material or material stored on pallets |
| 861 | Gas or liquid in or from a pipe or container |
| 871 | Rolled material |
| 881 | Adhesive |
| 899 | Form of material not classified |
| | |
| **9??** | **Other form of material** |
| 900 | Form of material; insufficient information to classify further |
| 911 | Railway sleepers |
| 971 | Multiple forms of material first ignited |
| 981 | Form of material not significant or not applicable |
| 999 | Form of material not classified |

# Ignition Factor

| CODE | DESCRIPTION |
|---|---|
| 0 | Non-recorded |
| **1?** | **Incendiary** |
| 11 | Unlawful incendiary |
| 12 | Lawful incendiary |
| 13 | Incendiary- lawfulness not determined |
| 14 | Suspicious |
| **2?** | **Reckless** |
| 21 | Reckless act |
| **3?** | **Misuse of heat of ignition** |
| 30 | Misuse of heat of ignition; insufficient information to classify further |
| 31 | Abandoned or discarded heat source (Includes smoking materials) |
| 32 | Thawing |
| 33 | Falling asleep (includes fires that result from person smoking falling asleep) |
| 34 | Inadequate control of an open fire |
| 35 | Heat source used or placed too close to combustibles |
| 36 | Children playing with heat source and having no knowledge that fire can do damage |
| 37 | Person impaired by drugs or alcohol |
| 38 | Person otherwise impaired (unconscious, mental or physical) |
| 39 | Misuse of heat of ignition not classified |
| **4?** | **Misuse of material ignited** |
| 40 | Misuse of material ignited; insufficient information to classify further |
| 41 | Flammable liquid or gas spilt or released accidentally |
| 42 | Improper fuelling technique |
| 43 | Flammable liquid used to kindle a fire |
| 44 | Washing, cleaning, refinishing or painting with a flammable liquid |
| 45 | Improper container |
| 46 | Combustible placed too close to heat source |
| 47 | Improper storage procedures (includes spontaneous ignitions) |
| 48 | Children playing with combustibles and having no knowledge fire can do damage |
| 49 | Misuse of material ignited not classified |
| **5?** | **Mechanical failure or malfunction** |
| 50 | Mechanical failure or malfunction; insufficient information to classify further |
| 51 | Part failure, leak or break |
| 52 | Automatic control failure |
| 53 | Manual control failure |
| 54 | Short circuit or earth fault |
| 55 | Other electrical failure |
| 56 | Lack of maintenance or worn out |
| 57 | Backfire |
| 59 | Mechanical failure or malfunction not classified |
| **6?** | **Design, construction or installation deficiency** |
| 60 | Design, construction or installation deficiency; insufficient info. to classify further |
| 61 | Design deficiency |
| 62 | Construction deficiency |
| 63 | Installed too close to combustibles |

| CODE | DESCRIPTION |
|---|---|
| 64 | Other installation deficiency |
| 65 | No spark arrester when one is required or spark arrester improperly installed |
| 69 | Design, construction or installation deficiency not classified |
| | |
| **7?** | **Operational deficiency** |
| 70 | Operational deficiency; insufficient information to classify further |
| 71 | Collision, overturn or knockdown |
| 72 | Accidentally turned on or not turned off |
| 73 | Equipment unattended |
| 74 | Equipment overloaded (includes cords serving too many appliances) |
| 75 | Failure to clean |
| 76 | Improper start-up or shutdown procedures |
| 77 | Equipment used for purpose not intended |
| 78 | Equipment not being operated properly |
| 79 | Operational deficiency not classified |
| | |
| **8?** | **Natural condition** |
| 80 | Natural condition; insufficient information to classify further |
| 81 | High wind |
| 82 | Earthquake |
| 83 | High water, including floods |
| 84 | Lightning |
| 85 | Low humidity |
| 86 | High temperature |
| 89 | Natural condition not classified |
| | |
| **9?** | **Other ignition factor** |
| 91 | Animal |
| 92 | Rekindled from a previous fire |
| 93 | Exposure fire |
| 95 | Failure to use ordinary care under circumstances not classified |
| 96 | Friction (not to be caused by operational deficiencies) |
| 99 | Other ignition factor; insufficient information to classify further |

## Location at Injury

| CODE | DESCRIPTION |
|---|---|
| 0 | Location at injury; insufficient information to classify further |
| 1 | Fire casualty intimately involved with ignition |
| 2 | Fire casualty in the room or space of fire origin |
| 3 | Fire casualty on the same floor as origin of fire |
| 4 | Fire casualty in same building as origin of fire |
| 5 | Fire casualty outside of building of fire origin but on property |
| 6 | Fire casualty off property of fire origin at time of ignition |
| 8 | Not a fire casualty |
| 9 | Location at injury not classified |

## Condition Before Injury

| CODE | DESCRIPTION |
|---|---|
| 0 | Condition before injury; insufficient information to classify further |
| 1 | Asleep |
| 2 | Bedridden or other physical handicap |
| 3 | Impaired by drugs or alcohol |
| 4 | Under restraint |
| 5 | Too young to act |
| 6 | Too old to act |
| 7 | Mentally handicapped or senile |
| 8 | Awake and unimpaired |
| 9 | Condition before injury not classified |

## Condition Preventing Escape

| CODE | DESCRIPTION |
|---|---|
| 0 | Condition preventing escape; insufficient information to classify further |
| 1 | No time to escape; explosion or fire progressed too rapidly |
| 2 | Fire between casualty and exit |
| 3 | Locked door |
| 4 | Illegal gates or locks |
| 5 | Clothing on casualty still burning |
| 6 | Moved too slowly |
| 7 | Victim incapacitated |
| 8 | No conditions prevented escape or not a factor |
| 9 | Condition preventing escape not classified |

## Activity at Time of Injury

| Code | Description |
|---|---|
| 0 | Activity at time of injury; insufficient information to classify further |
| 1 | Escaping |
| 2 | Rescue attempt |
| 3 | Fire control |
| 4 | Response/return |
| 5 | Clean-up, salvage or mop-up |
| 6 | Sleeping |
| 7 | Unable to act |
| 8 | Irrational action |
| 9 | Activity at time of injury not classified |

## Cause of Injury

| Code | Description |
|---|---|
| 0 | Cause of injury; insufficient information to classify further |
| 1 | Caught in, under, between; trapped by |
| 2 | Exposed to fire products |
| 3 | Exposed to chemicals, radiation |
| 4 | Fell or stepped on, over or into |
| 5 | Over-exertion |
| 6 | Rubbed by or contact with |
| 7 | Struck by |
| 8 | Not applicable |
| 9 | Cause of injury not classified |

## Nature of Injury

| Code | Description |
|---|---|
| 0 | Nature of injury; insufficient information to classify further |
| 1 | Burns and asphyxia/smoke |
| 2 | Burns only |
| 3 | Asphyxia/smoke only |
| 4 | Wound, cut, bleeding |
| 5 | Dislocation or fracture |
| 6 | Complaint of pain (includes heart attacks and strokes) |
| 7 | Shock |
| 8 | Strain or sprain |
| 9 | Nature of injury not classified |

## Part of Body Injured

| CODE | DESCRIPTION |
|---|---|
| 0 | Part of body injured; insufficient information to classify further |
| 1 | Head or neck |
| 2 | Trunk or back |
| 3 | Arm |
| 4 | Leg |
| 5 | Hand |
| 6 | Foot |
| 7 | Internal (includes respiratory system and heart) |
| 8 | Multiple parts |

# Appendix B

## Number of domestic fires by different fire features

## List of Tables

**Table B-1: Number of domestic fires by area of fire origin, 1986-1994.**

| Area Origin Code | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1702 | 1803 | 947 | 809 | 529 | 229 | 225 | 112 | 60 | 6416 |
| 01 | 70 | 70 | 64 | 69 | 73 | 67 | 49 | 55 | 77 | 594 |
| 02 | 7 | 8 | 16 | 10 | 8 | 16 | 13 | 9 | 7 | 94 |
| 03 | 3 | 3 | 4 | 2 | 3 | 2 | 1 | 1 | 4 | 23 |
| 04 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 4 |
| 05 | 46 | 40 | 29 | 41 | 46 | 36 | 36 | 41 | 32 | 347 |
| 09 | 2 | 6 | 5 | 4 | 5 | 7 | 14 | 0 | 2 | 45 |
| 11 | 1 | 2 | 0 | 1 | 2 | 1 | 0 | 2 | 1 | 10 |
| 12 | 0 | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 7 |
| 13 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 14 | 446 | 443 | 551 | 555 | 584 | 709 | 667 | 721 | 674 | 5350 |
| 15 | 0 | 1 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 7 |
| 16 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 4 |
| 17 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 |
| 19 | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 1 | 0 | 6 |
| 21 | 472 | 470 | 441 | 508 | 527 | 531 | 526 | 577 | 579 | 4631 |
| 22 | 6 | 3 | 6 | 3 | 2 | 5 | 4 | 7 | 8 | 44 |
| 23 | 34 | 43 | 54 | 44 | 51 | 41 | 81 | 91 | 87 | 526 |
| 24 | 585 | 699 | 820 | 905 | 1028 | 1159 | 1207 | 1459 | 1456 | 9318 |
| 25 | 16 | 27 | 27 | 26 | 46 | 40 | 29 | 36 | 42 | 289 |
| 26 | 140 | 140 | 142 | 166 | 161 | 164 | 147 | 163 | 164 | 1387 |
| 27 | 1 | 3 | 2 | 1 | 1 | 1 | 4 | 5 | 3 | 21 |
| 28 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| 29 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 31 | 27 | 78 |
| 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 32 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 4 |
| 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 35 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 4 |
| 37 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 3 |
| 38 | 4 | 2 | 2 | 3 | 2 | 5 | 2 | 2 | 1 | 23 |
| 39 | 7 | 10 | 13 | 17 | 16 | 13 | 8 | 0 | 0 | 84 |
| 41 | 34 | 34 | 46 | 39 | 34 | 42 | 38 | 14 | 10 | 291 |
| 42 | 32 | 35 | 36 | 31 | 22 | 34 | 25 | 37 | 22 | 274 |
| 43 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 21 | 24 | 56 |
| 44 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| 46 | 1 | 3 | 4 | 5 | 12 | 12 | 10 | 11 | 19 | 77 |
| 47 | 74 | 85 | 71 | 96 | 119 | 107 | 125 | 116 | 134 | 927 |
| 49 | 11 | 14 | 13 | 27 | 17 | 18 | 24 | 33 | 17 | 174 |
| 51 | 0 | 0 | 0 | 0 | 2 | 3 | 1 | 3 | 5 | 14 |
| 52 | 2 | 3 | 3 | 2 | 1 | 2 | 3 | 0 | 3 | 19 |
| 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 54 | 0 | 0 | 0 | 2 | 0 | 4 | 3 | 0 | 2 | 11 |
| 55 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 1 | 6 |
| 56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 57 | 159 | 287 | 642 | 734 | 877 | 1048 | 983 | 882 | 814 | 6426 |
| 58 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| 59 | 0 | 3 | 3 | 4 | 5 | 2 | 2 | 0 | 1 | 20 |

**Table B-2: Number of domestic fires by area of fire origin, 1986-1994 continued.**

| Area Origin Code | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 61 | 4 | 3 | 2 | 7 | 1 | 0 | 2 | 3 | 5 | 27 |
| 62 | 19 | 24 | 22 | 27 | 28 | 27 | 32 | 31 | 24 | 234 |
| 63 | 15 | 15 | 11 | 17 | 9 | 10 | 21 | 17 | 24 | 139 |
| 64 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 5 |
| 65 | 0 | 1 | 2 | 1 | 1 | 1 | 0 | 6 | 4 | 16 |
| 67 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| 68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 69 | 2 | 3 | 0 | 2 | 2 | 1 | 2 | 1 | 2 | 15 |
| 71 | 48 | 37 | 43 | 27 | 47 | 40 | 27 | 33 | 28 | 330 |
| 72 | 27 | 20 | 18 | 14 | 23 | 16 | 25 | 45 | 41 | 229 |
| 73 | 21 | 12 | 18 | 16 | 15 | 15 | 26 | 48 | 51 | 222 |
| 74 | 87 | 105 | 89 | 88 | 102 | 101 | 91 | 94 | 80 | 837 |
| 75 | 59 | 63 | 54 | 64 | 54 | 68 | 66 | 80 | 61 | 569 |
| 76 | 139 | 122 | 153 | 112 | 132 | 122 | 102 | 113 | 145 | 1140 |
| 77 | 15 | 11 | 12 | 7 | 9 | 11 | 11 | 14 | 11 | 101 |
| 78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 79 | 10 | 12 | 19 | 23 | 23 | 21 | 15 | 7 | 4 | 134 |
| 81 | 1 | 0 | 3 | 3 | 2 | 4 | 8 | 2 | 3 | 26 |
| 82 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 1 | 0 | 5 |
| 83 | 1 | 1 | 2 | 0 | 2 | 4 | 0 | 2 | 0 | 12 |
| 84 | 0 | 1 | 0 | 1 | 2 | 1 | 0 | 1 | 1 | 7 |
| 85 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 89 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 4 |
| 91 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 9 |
| 92 | 0 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 5 | 10 |
| 93 | 5 | 13 | 7 | 5 | 4 | 5 | 10 | 17 | 12 | 78 |
| 94 | 4 | 7 | 8 | 9 | 14 | 17 | 29 | 45 | 26 | 159 |
| 95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 96 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 97 | 0 | 0 | 0 | 1 | 0 | 1 | 9 | 12 | 15 | 38 |
| 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 3 | 7 |
| 99 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 7 | 3 | 17 |
| Total | 4318 | 4696 | 4420 | 4541 | 4653 | 4774 | 4750 | 5024 | 4833 | 42009 |

**Table B-3: Number of domestic fires by equipment involved in ignition, 1986-1994.**

| Equipment Involved Code | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1713 | 1245 | 8 | 4 | 8 | 13 | 15 | 4 | 5 | 3015 |
| 101 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 4 | 7 | 16 |
| 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 199 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 3 |
| 401 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 402 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 |
| 403 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 599 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 1000 | 2 | 3 | 2 | 7 | 18 | 15 | 4 | 1 | 0 | 52 |
| 1099 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 5 |
| 1100 | 9 | 10 | 3 | 6 | 10 | 19 | 4 | 0 | 0 | 61 |
| 1111 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 1121 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 4 | 10 |
| 1131 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 12 | 4 | 21 |
| 1141 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 10 | 6 | 18 |
| 1199 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 1200 | 16 | 29 | 29 | 26 | 39 | 41 | 19 | 0 | 0 | 199 |
| 1211 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 27 | 20 | 54 |
| 1221 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 9 | 8 | 22 |
| 1231 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 5 | 8 | 19 |
| 1241 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 1251 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 10 | 4 | 18 |
| 1252 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 1299 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 1311 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 4 | 9 |
| 1312 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 3 | 10 |
| 1313 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 4 |
| 1314 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 4 | 7 |
| 1315 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 4 |
| 1317 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 19 | 19 | 43 |
| 1318 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| 1331 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| 1341 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 |
| 1352 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 1362 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 1399 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 |
| 1400 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 19 | 41 | 67 |
| 1411 | 1 | 7 | 18 | 16 | 73 | 181 | 216 | 344 | 258 | 1114 |
| 1421 | 18 | 27 | 17 | 32 | 59 | 85 | 100 | 96 | 98 | 532 |
| 1431 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 38 | 30 | 80 |
| 1441 | 51 | 34 | 32 | 46 | 70 | 117 | 156 | 187 | 173 | 866 |
| 1499 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 2 | 6 |
| 1500 | 102 | 100 | 86 | 99 | 121 | 105 | 59 | 1 | 0 | 673 |
| 1511 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 19 | 12 | 37 |
| 1512 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 62 | 47 | 126 |
| 1513 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 6 | 14 |
| 1514 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| 1515 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 1521 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 19 | 13 | 37 |
| 1522 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 1531 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 1 | 7 |
| 1599 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 |
| 1600 | 27 | 20 | 29 | 31 | 108 | 241 | 153 | 4 | 2 | 615 |
| 1611 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 140 | 124 | 310 |
| 1621 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 18 | 20 | 43 |
| 1631 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 22 | 9 | 35 |
| 1641 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 1651 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 34 | 26 | 70 |
| 1699 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 1700 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 1711 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 3 | 13 |
| 1712 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 7 |
| 1721 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 1799 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 1800 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 1899 | 0 | 1 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 9 |

**Table B-4: Number of domestic fires by equipment involved in ignition, 1986-1994 continued.**

| Equipment Involved Code | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 2000 | 1 | 3 | 1 | 1 | 6 | 13 | 5 | 0 | 2 | 32 |
| 2099 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 6 | 12 |
| 2100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 1 | 9 |
| 2101 | 0 | 0 | 0 | 0 | 0 | 0 | 222 | 514 | 570 | 1306 |
| 2111 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 42 | 46 | 98 |
| 2112 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| 2121 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 7 | 8 | 17 |
| 2131 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 2199 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 2200 | 171 | 243 | 271 | 263 | 424 | 625 | 338 | 3 | 1 | 2339 |
| 2201 | 0 | 0 | 0 | 0 | 0 | 0 | 114 | 289 | 298 | 701 |
| 2211 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 16 | 16 | 41 |
| 2212 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 |
| 2221 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 19 | 18 | 47 |
| 2251 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 12 | 16 | 33 |
| 2299 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| 2300 | 1 | 2 | 1 | 1 | 3 | 2 | 2 | 0 | 0 | 12 |
| 2399 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 2400 | 3 | 2 | 0 | 1 | 3 | 14 | 5 | 1 | 1 | 30 |
| 2411 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 |
| 2412 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 2413 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2441 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 6 |
| 2499 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 |
| 2500 | 15 | 14 | 20 | 24 | 11 | 28 | 14 | 1 | 0 | 127 |
| 2511 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 1 | 7 |
| 2512 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 2513 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 | 7 |
| 2522 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 3 | 12 |
| 2531 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 21 | 29 | 59 |
| 2542 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 2544 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 2545 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 2599 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 6 | 13 |
| 2600 | 1 | 1 | 1 | 3 | 1 | 6 | 4 | 1 | 0 | 18 |
| 2611 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 2631 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| 2632 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 8 | 7 | 18 |
| 2633 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 5 |
| 2699 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 4 |
| 2700 | 3 | 3 | 6 | 8 | 5 | 5 | 0 | 0 | 1 | 31 |
| 2711 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 2712 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 7 | 11 |
| 2799 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 5 |
| 3000 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 3100 | 0 | 1 | 2 | 0 | 1 | 3 | 1 | 0 | 0 | 8 |
| 3102 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 3 |
| 3300 | 10 | 9 | 8 | 11 | 3 | 7 | 3 | 0 | 0 | 51 |
| 3311 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 3312 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 7 | 6 | 15 |
| 3322 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 12 | 18 |
| 3400 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 3500 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4000 | 3 | 2 | 2 | 1 | 10 | 19 | 10 | 0 | 0 | 47 |
| 4099 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 4100 | 11 | 7 | 5 | 1 | 28 | 42 | 30 | 0 | 3 | 127 |
| 4101 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 3 | 8 |
| 4102 | 0 | 0 | 0 | 0 | 0 | 0 |  | 0 | 6 | 6 |
| 4103 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 9 | 17 | 32 |
| 4104 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| 4107 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 16 | 19 | 39 |
| 4108 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 4 |
| 4111 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 |
| 4112 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 3 | 7 |
| 4119 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| 4121 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |

**Table B-5: Number of domestic fires by equipment involved in ignition, 1986-1994 continued.**

| Equipment Involved Code | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 4200 | 1 | 2 | 2 | 1 | 3 | 1 | 1 | 0 | 1 | 12 |
| 4201 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| 4202 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 4203 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| 4204 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 4299 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 4300 | 10 | 9 | 2 | 1 | 9 | 14 | 11 | 2 | 2 | 60 |
| 4301 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 6 |
| 4302 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 15 | 20 | 37 |
| 4399 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 4400 | 12 | 5 | 4 | 4 | 16 | 21 | 16 | 0 | 0 | 78 |
| 4401 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 12 | 11 | 29 |
| 4403 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 7 | 10 |
| 4431 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 12 | 21 | 42 |
| 4432 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 6 | 9 |
| 4441 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 10 |
| 4499 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 3 |
| 4500 | 5 | 5 | 5 | 1 | 20 | 16 | 8 | 1 | 1 | 62 |
| 4501 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 20 | 23 | 58 |
| 4502 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 6 | 3 | 14 |
| 4599 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 6 | 12 |
| 4600 | 6 | 7 | 0 | 6 | 15 | 22 | 8 | 2 | 0 | 66 |
| 4601 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 7 | 13 |
| 4602 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 7 | 12 | 29 |
| 4603 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 8 | 14 |
| 4641 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 4642 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 4699 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 5 | 10 |
| 4700 | 5 | 3 | 4 | 0 | 9 | 18 | 5 | 1 | 1 | 46 |
| 4701 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 2 | 8 |
| 4702 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| 4703 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 11 | 14 |
| 4704 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 4705 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 1 | 5 |
| 4706 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 8 | 13 |
| 4799 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 3 | 6 |
| 4800 | 3 | 1 | 2 | 3 | 11 | 15 | 3 | 1 | 0 | 39 |
| 4801 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 25 | 27 | 60 |
| 4802 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 4803 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 3 |
| 4899 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| 5000 | 7 | 4 | 10 | 11 | 12 | 23 | 12 | 0 | 1 | 80 |
| 5099 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 9 |
| 5100 | 63 | 60 | 35 | 51 | 38 | 53 | 29 | 2 | 1 | 332 |
| 5101 | 0 | 0 | 0 | 0 | 0 | 43 | 16 | 36 | 43 | 138 |
| 5102 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 3 | 5 | 15 |
| 5103 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 6 | 12 |
| 5104 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 4 |
| 5105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 4 |
| 5106 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 5108 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 5199 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 6 |
| 5200 | 23 | 28 | 20 | 32 | 39 | 0 | 16 | 2 | 0 | 160 |
| 5201 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 5202 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 31 | 37 | 82 |
| 5203 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 6 | 5 | 16 |
| 5204 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 21 | 20 | 56 |
| 5205 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 23 | 18 | 51 |
| 5299 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| 5300 | 59 | 57 | 69 | 76 | 80 | 72 | 29 | 0 | 1 | 443 |
| 5301 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 6 | 11 | 25 |
| 5302 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 73 | 61 | 154 |
| 5321 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 5322 | 15 | 9 | 14 | 12 | 18 | 11 | 19 | 24 | 24 | 146 |
| 5399 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |

**Table B-6: Number of domestic fires by equipment involved in ignition, 1986-1994 continued.**

| Equipment Involved Code | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 5400 | 2 | 1 | 3 | 3 | 2 | 2 | 3 | 0 | 0 | 16 |
| 5401 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 1 | 7 |
| 5406 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 5500 | 2 | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 0 | 10 |
| 5501 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 6 |
| 5502 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 5599 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 5600 | 2 | 11 | 3 | 5 | 8 | 23 | 2 | 0 | 0 | 54 |
| 5602 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 5699 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 4 |
| 5700 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 |
| 5701 | 129 | 128 | 97 | 133 | 139 | 112 | 110 | 108 | 92 | 1048 |
| 5702 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 22 | 16 | 43 |
| 5711 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 2 | 8 |
| 5712 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| 5721 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 11 | 6 | 18 |
| 5799 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 3 | 12 |
| 5800 | 0 | 9 | 6 | 14 | 21 | 23 | 15 | 1 | 0 | 89 |
| 5801 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 5802 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 5804 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 3 | 7 |
| 5805 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 |
| 5811 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 5899 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 5 |
| 6000 | 1 | 2 | 1 | 1 | 2 | 5 | 4 | 0 | 0 | 16 |
| 6099 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 6100 | 0 | 1 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 5 |
| 6111 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 6112 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 6199 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 6500 | 2 | 2 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 8 |
| 6501 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 5 |
| 6600 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 3 |
| 6609 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 6699 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 7000 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7100 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| 7103 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| 7302 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 7400 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 7403 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 5 |
| 7600 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| 7703 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 7800 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| 8000 | 0 | 1 | 0 | 1 | 2 | 1 | 1 | 0 | 0 | 6 |
| 8100 | 0 | 1 | 0 | 0 | 2 | 5 | 2 | 0 | 0 | 10 |
| 8101 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 6 |
| 8300 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| 8302 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 6 | 9 |
| 8500 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 4 |
| 8501 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 8700 | 24 | 22 | 7 | 13 | 24 | 30 | 11 | 1 | 0 | 132 |
| 8701 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| 8702 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 8 | 7 | 17 |
| 8703 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 9 | 11 | 25 |
| 8705 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 8799 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 6 | 3 | 14 |
| 9101 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 9300 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 9401 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 9500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 9501 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 9599 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 9600 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| 9602 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 9700 | 0 | 1 | 1 | 2 | 4 | 23 | 10 | 2 | 4 | 47 |
| 9800 | 1789 | 2558 | 3586 | 3586 | 3170 | 2651 | 2456 | 2212 | 2056 | 24064 |
| 9900 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 6 | 8 |
| Total | 4318 | 4696 | 4420 | 4541 | 4653 | 4774 | 4750 | 5024 | 4833 | 42009 |

**Table B-7: Number of domestic fires by form of heat of ignition, 1986-1994.**

| Form Heat Code | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 2169 | 2323 | 1471 | 1340 | 1106 | 769 | 544 | 229 | 185 | 10136 |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 18 | 14 | 40 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 2 | 8 |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 9 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 5 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 9 | 96 | 143 | 189 | 205 | 188 | 215 | 161 | 4 | 0 | 1201 |
| 10 | 6 | 12 | 28 | 23 | 20 | 37 | 13 | 0 | 0 | 139 |
| 11 | 4 | 6 | 7 | 9 | 10 | 3 | 8 | 6 | 3 | 56 |
| 12 | 5 | 12 | 11 | 9 | 7 | 4 | 12 | 15 | 14 | 89 |
| 13 | 65 | 58 | 45 | 50 | 53 | 51 | 62 | 67 | 39 | 490 |
| 14 | 20 | 19 | 19 | 24 | 33 | 42 | 28 | 11 | 18 | 214 |
| 15 | 47 | 33 | 56 | 62 | 71 | 78 | 83 | 103 | 101 | 634 |
| 16 | 10 | 13 | 24 | 18 | 19 | 17 | 11 | 9 | 5 | 126 |
| 17 | 26 | 28 | 20 | 19 | 25 | 24 | 28 | 22 | 19 | 211 |
| 19 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 12 | 22 |
| 20 | 12 | 3 | 14 | 14 | 17 | 10 | 5 | 3 | 0 | 78 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 137 | 291 | 262 | 690 |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 203 | 486 | 421 | 1110 |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 198 | 152 | 428 |
| 24 | 0 | 0 | 0 | 0 | 0 | 0 | 83 | 188 | 215 | 486 |
| 25 | 74 | 146 | 180 | 168 | 184 | 250 | 140 | 51 | 42 | 1235 |
| 26 | 140 | 156 | 210 | 206 | 226 | 312 | 233 | 127 | 110 | 1720 |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 2 | 12 |
| 28 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 7 | 11 | 25 |
| 29 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 3 | 6 |
| 30 | 97 | 113 | 101 | 139 | 139 | 150 | 106 | 67 | 82 | 994 |
| 31 | 31 | 33 | 46 | 49 | 56 | 48 | 45 | 26 | 47 | 381 |
| 32 | 17 | 14 | 13 | 8 | 22 | 32 | 23 | 37 | 21 | 187 |
| 33 | 93 | 94 | 91 | 89 | 88 | 94 | 98 | 104 | 122 | 873 |
| 34 | 139 | 128 | 121 | 139 | 163 | 135 | 136 | 171 | 184 | 1316 |
| 35 | 40 | 41 | 46 | 38 | 47 | 45 | 58 | 49 | 67 | 431 |
| 36 | 11 | 10 | 17 | 22 | 19 | 16 | 22 | 20 | 19 | 156 |
| 37 | 46 | 43 | 41 | 50 | 59 | 51 | 51 | 64 | 70 | 475 |
| 38 | 1 | 3 | 1 | 2 | 1 | 3 | 3 | 4 | 7 | 25 |
| 39 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 19 | 20 | 46 |
| 40 | 45 | 47 | 47 | 38 | 59 | 60 | 38 | 22 | 20 | 376 |
| 41 | 4 | 1 | 3 | 11 | 9 | 10 | 8 | 13 | 16 | 75 |
| 42 | 17 | 14 | 9 | 6 | 14 | 7 | 14 | 12 | 12 | 105 |
| 43 | 127 | 133 | 194 | 207 | 264 | 304 | 252 | 163 | 140 | 1784 |
| 44 | 26 | 14 | 19 | 23 | 33 | 29 | 30 | 43 | 56 | 273 |
| 45 | 15 | 20 | 13 | 13 | 19 | 18 | 18 | 29 | 32 | 177 |
| 46 | 389 | 436 | 555 | 681 | 758 | 885 | 947 | 1156 | 1199 | 7006 |
| 47 | 84 | 69 | 65 | 102 | 87 | 81 | 81 | 144 | 108 | 821 |
| 49 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 20 | 16 | 46 |

**Table B-8: Number of domestic fires by form of heat of ignition, 1986-1994 continued.**

| Form Heat Code | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 50 | 1 | 2 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 7 |
| 51 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 4 |
| 53 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 54 | 7 | 14 | 17 | 21 | 10 | 11 | 18 | 9 | 18 | 125 |
| 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 56 | 8 | 9 | 13 | 14 | 15 | 16 | 14 | 16 | 11 | 116 |
| 59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 60 | 64 | 121 | 330 | 347 | 400 | 487 | 266 | 93 | 69 | 2177 |
| 61 | 143 | 125 | 121 | 101 | 120 | 128 | 113 | 153 | 126 | 1130 |
| 62 | 2 | 2 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 9 |
| 63 | 20 | 14 | 16 | 20 | 19 | 18 | 21 | 19 | 28 | 175 |
| 64 | 144 | 166 | 165 | 168 | 143 | 190 | 205 | 262 | 291 | 1734 |
| 65 | 49 | 49 | 68 | 70 | 96 | 90 | 106 | 136 | 138 | 802 |
| 66 | 22 | 27 | 31 | 33 | 48 | 46 | 75 | 54 | 75 | 411 |
| 67 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| 68 | 2 | 2 | 2 | 2 | 4 | 3 | 1 | 2 | 1 | 19 |
| 69 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 40 | 14 | 64 |
| 71 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 4 | 10 |
| 72 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 38 | 16 | 65 |
| 73 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 6 | 11 |
| 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 79 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 4 |
| 80 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 81 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 47 | 55 | 127 |
| 82 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 59 | 52 | 141 |
| 83 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 17 | 14 | 39 |
| 84 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 19 | 18 | 47 |
| 89 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 3 | 1 | 8 |
| 97 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 9 | 5 | 21 |
| 99 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 13 | 10 | 33 |
| Total | 4318 | 4696 | 4420 | 4541 | 4653 | 4774 | 4750 | 5024 | 4833 | 42009 |

**Table B-9: Number of domestic fires by the type of material ignited material is made of, 1986-1994.**

| Material Type Code | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1702 | 1742 | 935 | 800 | 525 | 255 | 254 | 184 | 133 | 6530 |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 11 | 10 | 29 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 17 | 10 | 35 |
| 31 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 3 | 8 |
| 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 51 | 5 | 2 | 4 | 4 | 13 | 2 | 9 | 0 | 0 | 39 |
| 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| 61 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 82 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 3 | 7 |
| 99 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 |
| 100 | 1 | 0 | 0 | 1 | 2 | 2 | 2 | 0 | 1 | 9 |
| 111 | 7 | 9 | 6 | 14 | 11 | 8 | 16 | 18 | 17 | 106 |
| 121 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| 141 | 10 | 12 | 15 | 27 | 19 | 27 | 27 | 20 | 25 | 182 |
| 151 | 0 | 1 | 1 | 2 | 1 | 1 | 0 | 3 | 0 | 9 |
| 161 | 2 | 2 | 1 | 1 | 2 | 1 | 0 | 0 | 2 | 11 |
| 199 | 2 | 1 | 3 | 4 | 2 | 2 | 2 | 3 | 2 | 21 |
| 200 | 12 | 14 | 30 | 20 | 27 | 29 | 11 | 18 | 14 | 175 |
| 221 | 3 | 7 | 5 | 3 | 9 | 8 | 6 | 11 | 10 | 62 |
| 231 | 37 | 44 | 43 | 35 | 47 | 41 | 44 | 56 | 62 | 409 |
| 241 | 26 | 23 | 17 | 21 | 19 | 21 | 13 | 9 | 5 | 154 |
| 261 | 2 | 2 | 9 | 4 | 4 | 4 | 2 | 8 | 3 | 38 |
| 271 | 81 | 104 | 142 | 169 | 193 | 218 | 268 | 322 | 316 | 1813 |
| 299 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 5 |
| 300 | 5 | 11 | 6 | 11 | 8 | 17 | 5 | 0 | 0 | 63 |
| 311 | 187 | 252 | 308 | 330 | 362 | 428 | 408 | 470 | 499 | 3244 |
| 321 | 3 | 6 | 4 | 9 | 5 | 1 | 9 | 4 | 6 | 47 |
| 331 | 3 | 6 | 4 | 12 | 4 | 4 | 6 | 8 | 8 | 55 |
| 341 | 16 | 14 | 20 | 20 | 41 | 52 | 165 | 312 | 132 | 772 |
| 342 | 0 | 0 | 0 | 0 | 0 | 0 | 250 | 673 | 793 | 1716 |
| 351 | 9 | 10 | 18 | 20 | 22 | 16 | 18 | 14 | 18 | 145 |
| 361 | 0 | 0 | 2 | 0 | 1 | 1 | 3 | 0 | 0 | 7 |
| 371 | 0 | 1 | 2 | 3 | 2 | 1 | 2 | 3 | 2 | 16 |
| 399 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 400 | 151 | 124 | 134 | 176 | 216 | 186 | 119 | 22 | 19 | 1147 |
| 411 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 77 | 69 | 172 |
| 412 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 46 | 38 | 97 |
| 413 | 141 | 135 | 125 | 141 | 176 | 166 | 88 | 7 | 7 | 986 |
| 414 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 14 | 11 | 31 |
| 419 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 27 | 33 | 71 |
| 421 | 6 | 13 | 12 | 16 | 15 | 15 | 16 | 11 | 20 | 124 |
| 422 | 9 | 2 | 8 | 9 | 5 | 7 | 4 | 8 | 4 | 56 |
| 429 | 1 | 4 | 1 | 4 | 3 | 2 | 2 | 2 | 2 | 21 |
| 431 | 0 | 0 | 0 | 0 | 0 | 0 | 123 | 275 | 334 | 732 |
| 439 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 8 | 7 | 18 |
| 441 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 56 | 46 | 122 |
| 449 | 3 | 1 | 5 | 3 | 6 | 5 | 8 | 3 | 2 | 36 |
| 451 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 12 | 6 | 24 |
| 452 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 9 |
| 499 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 6 | 9 |

**Table B-10: Number of domestic fires by the type of material ignited material is made of, 1986-1994 continued.**

| Material Type Code | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 500 | 23 | 58 | 93 | 69 | 97 | 102 | 68 | 4 | 2 | 516 |
| 511 | 44 | 33 | 28 | 29 | 37 | 29 | 20 | 26 | 24 | 270 |
| 521 | 1 | 1 | 0 | 1 | 0 | 4 | 5 | 0 | 0 | 12 |
| 531 | 2 | 1 | 0 | 3 | 2 | 3 | 1 | 1 | 0 | 13 |
| 541 | 24 | 22 | 31 | 24 | 35 | 30 | 17 | 13 | 21 | 217 |
| 551 | 41 | 34 | 34 | 39 | 35 | 52 | 36 | 34 | 42 | 347 |
| 561 | 40 | 113 | 341 | 523 | 605 | 803 | 518 | 112 | 61 | 3116 |
| 571 | 46 | 41 | 86 | 73 | 117 | 156 | 182 | 226 | 235 | 1162 |
| 581 | 2 | 2 | 1 | 3 | 2 | 4 | 5 | 0 | 2 | 21 |
| 599 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 8 | 12 | 23 |
| 600 | 68 | 94 | 100 | 118 | 143 | 151 | 94 | 21 | 13 | 802 |
| 611 | 11 | 14 | 12 | 21 | 13 | 15 | 30 | 62 | 34 | 212 |
| 612 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 3 | 10 |
| 621 | 13 | 27 | 42 | 38 | 46 | 42 | 33 | 10 | 9 | 260 |
| 631 | 592 | 598 | 600 | 608 | 629 | 736 | 665 | 655 | 669 | 5752 |
| 632 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 7 | 7 | 16 |
| 633 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 4 | 7 |
| 641 | 12 | 11 | 18 | 13 | 15 | 18 | 12 | 3 | 2 | 104 |
| 651 | 45 | 34 | 25 | 21 | 23 | 23 | 45 | 52 | 48 | 316 |
| 661 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 |
| 671 | 137 | 131 | 123 | 119 | 131 | 156 | 146 | 147 | 132 | 1222 |
| 672 | 12 | 16 | 19 | 18 | 18 | 18 | 53 | 97 | 93 | 344 |
| 681 | 16 | 25 | 23 | 29 | 24 | 27 | 39 | 44 | 45 | 272 |
| 699 | 0 | 0 | 0 | 0 | 82 | 0 | 7 | 19 | 10 | 118 |
| 700 | 72 | 71 | 49 | 67 | 210 | 76 | 49 | 46 | 21 | 661 |
| 711 | 149 | 153 | 168 | 176 | 151 | 205 | 191 | 210 | 220 | 1623 |
| 721 | 162 | 156 | 138 | 160 | 94 | 171 | 202 | 213 | 199 | 1495 |
| 731 | 116 | 106 | 107 | 109 | 1 | 106 | 109 | 108 | 109 | 871 |
| 741 | 6 | 2 | 1 | 1 | 2 | 3 | 1 | 8 | 2 | 26 |
| 751 | 1 | 0 | 1 | 3 | 3 | 3 | 2 | 2 | 0 | 15 |
| 761 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 9 |
| 771 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 13 | 14 | 33 |
| 799 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 3 | 8 | 15 |
| 800 | 1 | 0 | 0 | 2 | 4 | 6 | 0 | 2 | 1 | 16 |
| 811 | 2 | 1 | 1 | 1 | 1 | 7 | 6 | 1 | 2 | 22 |
| 821 | 0 | 1 | 2 | 1 | 0 | 1 | 0 | 0 | 2 | 7 |
| 841 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 3 | 3 | 9 |
| 851 | 3 | 1 | 1 | 2 | 3 | 2 | 4 | 4 | 0 | 20 |
| 861 | 1 | 1 | 1 | 3 | 4 | 1 | 6 | 0 | 0 | 17 |
| 899 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 4 |
| 900 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 8 | 5 | 16 |
| 911 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 931 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 44 | 52 | 122 |
| 971 | 252 | 405 | 514 | 405 | 385 | 303 | 153 | 27 | 18 | 2462 |
| 981 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 13 | 2 | 22 |
| 999 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 10 | 15 | 31 |
| Total | 4318 | 4696 | 4420 | 4541 | 4653 | 4774 | 4750 | 5024 | 4833 | 42009 |

**Table B-11: Number of domestic fires by the form of material ignited, 1986-1994.**

| Form of Material Code | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1671 | 1702 | 874 | 736 | 470 | 210 | 176 | 74 | 24 | 5937 |
| 100 | 36 | 43 | 66 | 67 | 68 | 75 | 29 | 14 | 10 | 408 |
| 111 | 6 | 15 | 15 | 10 | 8 | 14 | 7 | 9 | 13 | 97 |
| 121 | 139 | 129 | 154 | 114 | 143 | 152 | 127 | 126 | 131 | 1215 |
| 131 | 29 | 22 | 22 | 31 | 24 | 26 | 24 | 29 | 21 | 228 |
| 141 | 69 | 69 | 58 | 59 | 42 | 68 | 60 | 87 | 91 | 603 |
| 151 | 164 | 134 | 120 | 137 | 128 | 127 | 120 | 106 | 112 | 1148 |
| 161 | 36 | 45 | 38 | 30 | 30 | 40 | 42 | 24 | 23 | 308 |
| 171 | 200 | 211 | 174 | 185 | 204 | 223 | 218 | 285 | 273 | 1973 |
| 181 | 12 | 25 | 19 | 30 | 28 | 28 | 30 | 47 | 45 | 264 |
| 199 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 17 | 12 | 42 |
| 200 | 13 | 14 | 19 | 23 | 22 | 33 | 3 | 6 | 6 | 139 |
| 211 | 73 | 73 | 72 | 77 | 75 | 85 | 87 | 99 | 88 | 729 |
| 221 | 3 | 1 | 2 | 2 | 2 | 1 | 3 | 2 | 9 | 25 |
| 231 | 12 | 19 | 16 | 23 | 11 | 25 | 28 | 21 | 30 | 185 |
| 241 | 0 | 1 | 2 | 0 | 1 | 1 | 1 | 2 | 1 | 9 |
| 251 | 32 | 32 | 23 | 34 | 38 | 51 | 47 | 59 | 39 | 355 |
| 261 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 64 | 61 | 141 |
| 299 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 15 | 13 | 35 |
| 300 | 12 | 13 | 14 | 15 | 16 | 14 | 16 | 4 | 2 | 106 |
| 311 | 106 | 100 | 83 | 99 | 86 | 99 | 90 | 89 | 88 | 840 |
| 321 | 203 | 215 | 189 | 211 | 229 | 219 | 227 | 244 | 227 | 1964 |
| 331 | 15 | 16 | 17 | 13 | 21 | 24 | 31 | 31 | 32 | 200 |
| 341 | 62 | 62 | 68 | 71 | 81 | 89 | 84 | 112 | 106 | 735 |
| 351 | 3 | 4 | 7 | 4 | 7 | 10 | 7 | 2 | 6 | 50 |
| 361 | 55 | 30 | 36 | 47 | 57 | 47 | 48 | 53 | 53 | 426 |
| 371 | 3 | 2 | 6 | 4 | 2 | 5 | 9 | 5 | 3 | 39 |
| 381 | 2 | 1 | 2 | 1 | 1 | 1 | 4 | 2 | 1 | 15 |
| 399 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 4 | 10 |
| 400 | 11 | 7 | 6 | 6 | 12 | 11 | 7 | 4 | 3 | 67 |
| 411 | 1 | 2 | 5 | 0 | 3 | 1 | 1 | 3 | 5 | 21 |
| 421 | 2 | 1 | 6 | 3 | 2 | 3 | 5 | 8 | 10 | 40 |
| 431 | 7 | 0 | 7 | 2 | 4 | 7 | 11 | 14 | 16 | 68 |
| 441 | 50 | 67 | 49 | 45 | 48 | 48 | 68 | 84 | 70 | 529 |
| 451 | 3 | 4 | 7 | 6 | 10 | 7 | 8 | 18 | 13 | 76 |
| 461 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 1 | 5 |
| 471 | 0 | 2 | 1 | 0 | 2 | 2 | 1 | 3 | 1 | 12 |
| 499 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 1 | 10 |

**Table B-12: Number of domestic fires by the form of material ignited, 1986-1994 continued.**

| Form of Material Code | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 500 | 3 | 3 | 8 | 7 | 16 | 17 | 7 | 1 | 1 | 63 |
| 511 | 41 | 46 | 40 | 45 | 50 | 45 | 49 | 48 | 61 | 425 |
| 521 | 2 | 6 | 3 | 3 | 2 | 5 | 3 | 9 | 9 | 42 |
| 531 | 1 | 4 | 0 | 1 | 4 | 3 | 1 | 1 | 2 | 17 |
| 541 | 2 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 7 | 13 |
| 551 | 10 | 6 | 10 | 6 | 12 | 14 | 15 | 9 | 3 | 85 |
| 561 | 5 | 6 | 3 | 6 | 5 | 11 | 9 | 4 | 14 | 63 |
| 571 | 0 | 2 | 1 | 2 | 5 | 9 | 6 | 4 | 0 | 29 |
| 581 | 2 | 6 | 2 | 4 | 6 | 12 | 10 | 19 | 0 | 61 |
| 599 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 5 |
| 600 | 32 | 28 | 25 | 41 | 34 | 34 | 24 | 13 | 12 | 243 |
| 611 | 235 | 203 | 208 | 234 | 279 | 238 | 253 | 298 | 348 | 2296 |
| 621 | 3 | 4 | 1 | 7 | 6 | 6 | 8 | 1 | 10 | 46 |
| 631 | 9 | 2 | 7 | 11 | 12 | 12 | 13 | 14 | 9 | 89 |
| 641 | 3 | 0 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 14 |
| 651 | 90 | 106 | 108 | 115 | 138 | 134 | 135 | 136 | 141 | 1103 |
| 661 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 9 | 3 | 17 |
| 671 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 10 | 18 |
| 681 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 3 |
| 699 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 16 | 19 | 41 |
| 700 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 12 | 1 | 16 |
| 711 | 10 | 6 | 8 | 12 | 12 | 14 | 8 | 15 | 9 | 94 |
| 721 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 7 | 6 | 20 |
| 731 | 0 | 2 | 1 | 2 | 3 | 1 | 5 | 2 | 2 | 18 |
| 741 | 5 | 2 | 8 | 10 | 12 | 9 | 20 | 42 | 33 | 141 |
| 751 | 168 | 280 | 378 | 385 | 414 | 554 | 480 | 401 | 321 | 3381 |
| 761 | 286 | 369 | 487 | 533 | 611 | 753 | 807 | 969 | 1009 | 5824 |
| 771 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 5 | 0 | 10 |
| 781 | 0 | 0 | 0 | 0 | 0 | 0 | 311 | 866 | 888 | 2065 |
| 799 | 21 | 21 | 28 | 28 | 32 | 23 | 33 | 6 | 22 | 214 |
| 800 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 20 | 12 | 43 |
| 811 | 13 | 22 | 226 | 409 | 472 | 639 | 461 | 54 | 35 | 2331 |
| 821 | 1 | 1 | 3 | 2 | 1 | 0 | 3 | 0 | 5 | 16 |
| 831 | 2 | 9 | 15 | 4 | 1 | 1 | 1 | 0 | 1 | 34 |
| 841 | 3 | 19 | 0 | 22 | 16 | 24 | 25 | 4 | 6 | 119 |
| 851 | 0 | 1 | 0 | 0 | 27 | 0 | 2 | 2 | 0 | 32 |
| 861 | 17 | 2 | 20 | 26 | 4 | 28 | 30 | 26 | 26 | 179 |
| 871 | 5 | 0 | 4 | 2 | 4 | 13 | 11 | 3 | 2 | 44 |
| 881 | 2 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 2 | 7 |
| 899 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 13 | 10 | 31 |
| 900 | 300 | 453 | 603 | 500 | 569 | 402 | 264 | 137 | 101 | 3329 |
| 911 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| 971 | 16 | 26 | 41 | 34 | 27 | 21 | 21 | 15 | 14 | 215 |
| 981 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 35 | 10 | 55 |
| 999 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 25 | 23 | 61 |
| Total | 4318 | 4696 | 4420 | 4541 | 4653 | 4774 | 4750 | 5024 | 4833 | 42009 |

**Table B-13: Number of domestic fires by the factor causing ignition, 1986-1994.**

| Ignition Factor Code | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1642 | 1145 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2787 |
| 11 | 1 | 1 | 0 | 0 | 5 | 4 | 95 | 197 | 183 | 486 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 45 | 35 | 110 |
| 13 | 70 | 106 | 112 | 93 | 108 | 135 | 72 | 15 | 11 | 722 |
| 14 | 152 | 137 | 167 | 147 | 162 | 137 | 128 | 71 | 98 | 1199 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 69 | 87 | 182 |
| 30 | 114 | 122 | 161 | 201 | 232 | 217 | 98 | 17 | 6 | 1168 |
| 31 | 204 | 177 | 189 | 161 | 194 | 204 | 201 | 276 | 226 | 1832 |
| 32 | 0 | 1 | 0 | 2 | 0 | 1 | 2 | 2 | 0 | 8 |
| 33 | 46 | 53 | 50 | 63 | 73 | 91 | 93 | 109 | 115 | 693 |
| 34 | 76 | 67 | 96 | 59 | 86 | 102 | 68 | 57 | 38 | 649 |
| 35 | 24 | 24 | 25 | 29 | 27 | 26 | 120 | 203 | 201 | 679 |
| 36 | 123 | 128 | 123 | 155 | 129 | 144 | 157 | 205 | 190 | 1354 |
| 37 | 12 | 10 | 14 | 4 | 20 | 22 | 14 | 31 | 41 | 168 |
| 38 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 16 | 12 | 38 |
| 39 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 41 | 50 | 125 |
| 40 | 40 | 28 | 49 | 54 | 49 | 59 | 25 | 9 | 2 | 315 |
| 41 | 22 | 21 | 33 | 24 | 36 | 33 | 37 | 31 | 44 | 281 |
| 42 | 3 | 13 | 10 | 6 | 11 | 5 | 17 | 8 | 3 | 76 |
| 43 | 10 | 8 | 6 | 10 | 7 | 8 | 8 | 4 | 2 | 63 |
| 44 | 3 | 2 | 9 | 8 | 7 | 9 | 5 | 6 | 3 | 52 |
| 45 | 28 | 21 | 17 | 18 | 16 | 11 | 15 | 6 | 8 | 140 |
| 46 | 168 | 167 | 162 | 167 | 211 | 215 | 222 | 166 | 148 | 1626 |
| 47 | 35 | 45 | 44 | 47 | 55 | 81 | 50 | 25 | 13 | 395 |
| 48 | 45 | 45 | 58 | 59 | 51 | 67 | 62 | 25 | 31 | 443 |
| 49 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 15 | 9 | 28 |
| 50 | 39 | 49 | 43 | 57 | 55 | 66 | 30 | 17 | 17 | 373 |
| 51 | 67 | 47 | 64 | 82 | 76 | 99 | 96 | 86 | 102 | 719 |
| 52 | 19 | 25 | 20 | 25 | 20 | 27 | 19 | 30 | 23 | 208 |
| 53 | 5 | 11 | 5 | 7 | 5 | 13 | 27 | 42 | 53 | 168 |
| 54 | 169 | 194 | 183 | 198 | 204 | 182 | 189 | 204 | 212 | 1735 |
| 55 | 128 | 137 | 118 | 133 | 170 | 149 | 155 | 146 | 183 | 1319 |
| 56 | 95 | 185 | 256 | 269 | 320 | 367 | 315 | 131 | 123 | 2061 |
| 57 | 4 | 1 | 0 | 4 | 5 | 6 | 2 | 2 | 4 | 28 |
| 59 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 6 | 11 | 21 |

**Table B-14: Number of domestic fires by the factor causing ignition, 1986-1994 continued.**

| Ignition Factor Code | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 60 | 25 | 20 | 19 | 24 | 25 | 20 | 13 | 8 | 7 | 161 |
| 61 | 7 | 9 | 5 | 8 | 7 | 4 | 7 | 16 | 9 | 72 |
| 62 | 78 | 46 | 36 | 25 | 34 | 48 | 40 | 62 | 57 | 426 |
| 63 | 66 | 52 | 38 | 36 | 31 | 44 | 71 | 126 | 110 | 574 |
| 64 | 65 | 108 | 126 | 147 | 134 | 183 | 105 | 20 | 22 | 910 |
| 65 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 8 |
| 69 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 8 | 10 | 22 |
| 70 | 56 | 94 | 206 | 281 | 326 | 328 | 292 | 11 | 16 | 1610 |
| 71 | 9 | 9 | 9 | 16 | 11 | 12 | 7 | 28 | 11 | 112 |
| 72 | 61 | 55 | 92 | 94 | 107 | 104 | 119 | 148 | 132 | 912 |
| 73 | 269 | 298 | 356 | 393 | 429 | 500 | 511 | 607 | 627 | 3990 |
| 74 | 21 | 30 | 21 | 32 | 30 | 37 | 36 | 30 | 24 | 261 |
| 75 | 0 | 0 | 0 | 0 | 0 | 0 | 412 | 1156 | 1075 | 2643 |
| 76 | 6 | 7 | 7 | 20 | 13 | 20 | 22 | 13 | 15 | 123 |
| 77 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 11 | 3 | 17 |
| 78 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 52 | 47 | 113 |
| 79 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 26 | 28 | 64 |
| 80 | 11 | 5 | 13 | 10 | 10 | 15 | 2 | 3 | 1 | 70 |
| 81 | 7 | 22 | 13 | 7 | 14 | 10 | 10 | 12 | 19 | 114 |
| 82 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 1 | 0 | 10 |
| 83 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| 84 | 7 | 8 | 2 | 5 | 2 | 3 | 1 | 4 | 7 | 39 |
| 85 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 86 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 14 | 18 | 47 |
| 89 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 6 | 16 |
| 90 | 257 | 906 | 1406 | 1304 | 1084 | 885 | 522 | 170 | 122 | 6656 |
| 91 | 8 | 6 | 4 | 12 | 13 | 16 | 5 | 11 | 8 | 83 |
| 92 | 20 | 31 | 21 | 23 | 25 | 28 | 20 | 31 | 30 | 229 |
| 93 | 0 | 19 | 30 | 20 | 21 | 35 | 36 | 43 | 65 | 269 |
| 95 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 70 | 55 | 153 |
| 96 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 5 |
| 99 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 18 | 18 | 46 |
| Total | 4318 | 4696 | 4420 | 4541 | 4653 | 4774 | 4750 | 5024 | 4833 | 42009 |

# Appendix C

## Number of casualties by different domestic fire features

## Contents:

**Table C-1: Injuries and fatalities occurring from domestic fires by area of fire origin, 1986-1990.**

| Area Origin Code | 1986 | | 1987 | | 1988 | | 1989 | | 1990 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | 3 | 1 | 5 | 0 | 4 | 0 | 1 | 0 | 2 | 0 |
| 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 09 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 14 | 19 | 7 | 14 | 1 | 12 | 7 | 23 | 7 | 14 | 1 |
| 21 | 28 | 9 | 44 | 8 | 19 | 8 | 27 | 7 | 39 | 6 |
| 22 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 23 | 2 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |
| 24 | 29 | 3 | 35 | 6 | 26 | 8 | 51 | 5 | 49 | 1 |
| 25 | 0 | 1 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 26 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 9 | 1 |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 38 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 39 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 |
| 41 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 |
| 42 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 |
| 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 47 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 8 | 1 |
| 49 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 57 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 61 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 65 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 71 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 |
| 72 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 |
| 73 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 74 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 75 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 76 | 4 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 77 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 |
| 79 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 83 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 92 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 97 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 95 | 23 | 113 | 19 | 83 | 27 | 114 | 19 | 128 | 10 |

**Table C-2: Injuries and fatalities occurring from domestic fires by area of fire origin, 1990-1994.**

| Area Origin Code | 1991 | | 1992 | | 1993 | | 1994 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | 1 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 17 | 4 |
| 1 | 0 | 0 | 0 | 1 | 1 | 0 | 6 | 0 | 10 | 1 |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 6 | 0 |
| 09 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 14 | 14 | 3 | 26 | 4 | 18 | 7 | 26 | 3 | 166 | 40 |
| 21 | 37 | 4 | 31 | 9 | 53 | 6 | 66 | 8 | 344 | 65 |
| 22 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 |
| 23 | 1 | 0 | 2 | 0 | 7 | 0 | 2 | 1 | 15 | 4 |
| 24 | 57 | 5 | 40 | 2 | 59 | 5 | 73 | 6 | 419 | 41 |
| 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1 |
| 26 | 7 | 0 | 1 | 0 | 2 | 1 | 4 | 0 | 26 | 2 |
| 27 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 29 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 |
| 41 | 1 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 10 | 0 |
| 42 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 6 | 0 |
| 43 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| 47 | 0 | 1 | 1 | 0 | 2 | 0 | 6 | 0 | 22 | 4 |
| 49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 57 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 5 | 0 |
| 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 62 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 4 | 0 |
| 65 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 71 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 6 | 1 |
| 72 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 5 | 1 |
| 73 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 2 |
| 74 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 7 | 0 |
| 75 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 |
| 76 | 3 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 11 | 0 |
| 77 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 |
| 79 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 83 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 92 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 97 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 99 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| Total | 124 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1115 | 170 |

**Table C-3: Injuries and fatalities occurring from domestic fires by equipment involved in ignition, 1986-1990.**

| Equipment Involved Code | 1986 | | 1987 | | 1988 | | 1989 | | 1990 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | 3 | 0 | 7 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 0101 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0199 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0599 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 1221 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1311 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1312 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1411 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1441 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 1500 | 7 | 1 | 11 | 2 | 2 | 1 | 12 | 5 | 9 | 0 |
| 1511 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1512 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1513 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1521 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1531 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2101 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2111 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2121 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2200 | 10 | 1 | 15 | 0 | 13 | 2 | 13 | 4 | 15 | 0 |
| 2201 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2211 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2251 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2300 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2500 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 |
| 2522 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2531 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2599 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2700 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 2712 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3100 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 4000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4100 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 4500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4600 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4602 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4700 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 4701 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4706 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4800 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 4801 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5000 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 3 | 1 |
| 5100 | 0 | 2 | 1 | 2 | 0 | 0 | 5 | 0 | 2 | 0 |
| 5101 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5200 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 7 | 0 |
| 5202 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5203 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5300 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5302 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5322 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 5400 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5600 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5701 | 9 | 0 | 6 | 1 | 3 | 1 | 3 | 0 | 15 | 2 |
| 5702 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5711 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5721 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5800 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 5804 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6000 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6699 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8302 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8700 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 8702 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8703 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8799 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9800 | 62 | 19 | 70 | 13 | 57 | 21 | 76 | 10 | 69 | 7 |
| 9900 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 95 | 23 | 113 | 19 | 83 | 27 | 114 | 19 | 128 | 10 |

**Table C-4: Injuries and fatalities occurring from domestic fires by equipment involved in ignition, 1990-1994.**

| Equipment Involved Code | 1991 | | 1992 | | 1993 | | 1994 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 18 | 0 |
| 0101 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 0199 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 0599 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 1000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 1221 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 1311 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 1312 | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 3 | 2 |
| 1411 | 1 | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 9 | 0 |
| 1441 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 0 | 9 | 0 |
| 1500 | 2 | 2 | 4 | 2 | 0 | 0 | 0 | 0 | 47 | 13 |
| 1511 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |
| 1512 | 0 | 0 | 2 | 0 | 6 | 2 | 8 | 1 | 16 | 3 |
| 1513 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 1521 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 1531 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 2101 | 0 | 0 | 8 | 0 | 31 | 2 | 37 | 6 | 76 | 8 |
| 2111 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 4 | 0 |
| 2121 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 2200 | 27 | 2 | 10 | 1 | 0 | 0 | 0 | 0 | 103 | 10 |
| 2201 | 0 | 0 | 5 | 0 | 5 | 0 | 10 | 0 | 20 | 0 |
| 2211 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 3 | 0 |
| 2251 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 2300 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 2500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 |
| 2522 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 2531 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 2599 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 2700 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 2712 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 3100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 4000 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4100 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 4500 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 4600 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 4602 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 4700 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 4701 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 3 | 1 |
| 4706 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 |
| 4800 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 4801 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 5000 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 2 |
| 5100 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 11 | 4 |
| 5101 | 0 | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 7 | 0 |
| 5200 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 |
| 5202 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 5203 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 5300 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 5302 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 5322 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 5400 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 5600 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 5701 | 7 | 0 | 1 | 0 | 4 | 1 | 16 | 1 | 64 | 6 |
| 5702 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 |
| 5711 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 5721 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 5800 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 5804 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 6000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 6699 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 8100 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 8302 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 8500 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 8700 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 8702 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 8703 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 8799 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 9800 | 73 | 11 | 60 | 13 | 79 | 14 | 88 | 8 | 634 | 116 |
| 9900 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |
| Total | 124 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1115 | 170 |

**Table C-5: Injuries and fatalities occurring from domestic fires by form of heat of ignition, 1986-1990.**

| Form Heat Code | 1986 | | 1987 | | 1988 | | 1989 | | 1990 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | 17 | 6 | 26 | 5 | 19 | 15 | 12 | 2 | 24 | 5 |
| 09 | 3 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 3 | 0 |
| 12 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 13 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 14 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 15 | 6 | 0 | 0 | 0 | 3 | 0 | 4 | 1 | 3 | 0 |
| 16 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 17 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 20 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| 26 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30 | 0 | 1 | 4 | 1 | 3 | 2 | 8 | 0 | 3 | 1 |
| 31 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 |
| 32 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 33 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| 34 | 3 | 1 | 1 | 0 | 2 | 0 | 5 | 0 | 4 | 0 |
| 35 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| 36 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 |
| 37 | 1 | 0 | 6 | 0 | 1 | 0 | 0 | 0 | 3 | 0 |
| 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40 | 0 | 1 | 2 | 1 | 1 | 0 | 2 | 0 | 5 | 1 |
| 41 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 43 | 3 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 44 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 |
| 46 | 26 | 1 | 24 | 4 | 15 | 3 | 46 | 9 | 41 | 1 |
| 47 | 3 | 0 | 2 | 1 | 2 | 0 | 2 | 0 | 2 | 1 |
| 49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60 | 2 | 1 | 1 | 0 | 1 | 0 | 2 | 0 | 1 | 0 |
| 61 | 10 | 4 | 16 | 3 | 5 | 4 | 7 | 4 | 8 | 1 |
| 63 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 |
| 64 | 5 | 3 | 8 | 1 | 5 | 1 | 10 | 2 | 5 | 0 |
| 65 | 2 | 0 | 7 | 1 | 4 | 1 | 5 | 0 | 6 | 0 |
| 66 | 3 | 4 | 3 | 0 | 1 | 0 | 4 | 0 | 5 | 0 |
| 68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 82 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 97 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 95 | 23 | 113 | 19 | 83 | 27 | 114 | 19 | 128 | 10 |

**Table C-6: Injuries and fatalities occurring from domestic fires by form of heat of ignition, 1990-1994.**

| Form Heat Code | 1991 | | 1992 | | 1993 | | 1994 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | 11 | 7 | 5 | 3 | 2 | 3 | 12 | 1 | 128 | 47 |
| 09 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 14 | 0 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 |
| 13 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 6 | 0 |
| 14 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 6 | 0 |
| 15 | 2 | 0 | 3 | 0 | 4 | 0 | 4 | 0 | 29 | 1 |
| 16 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 6 | 0 |
| 17 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 5 | 2 |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 |
| 21 | 0 | 0 | 2 | 0 | 1 | 0 | 2 | 1 | 5 | 1 |
| 22 | 0 | 0 | 3 | 0 | 1 | 3 | 3 | 0 | 7 | 3 |
| 23 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 24 | 0 | 0 | 0 | 0 | 5 | 0 | 2 | 0 | 7 | 0 |
| 25 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 5 | 2 |
| 26 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 6 | 0 |
| 28 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 30 | 7 | 0 | 2 | 0 | 1 | 0 | 5 | 1 | 33 | 6 |
| 31 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 |
| 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 33 | 2 | 0 | 0 | 0 | 4 | 0 | 5 | 0 | 17 | 0 |
| 34 | 3 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 28 | 1 |
| 35 | 2 | 0 | 1 | 0 | 2 | 0 | 4 | 0 | 14 | 1 |
| 36 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 6 | 0 |
| 37 | 1 | 1 | 2 | 1 | 2 | 0 | 0 | 0 | 16 | 2 |
| 39 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |
| 40 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 12 | 4 |
| 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 42 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 43 | 3 | 0 | 5 | 0 | 4 | 0 | 4 | 0 | 22 | 0 |
| 44 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 10 | 1 |
| 46 | 48 | 4 | 41 | 1 | 54 | 6 | 68 | 9 | 363 | 38 |
| 47 | 3 | 0 | 2 | 0 | 8 | 3 | 11 | 0 | 35 | 5 |
| 49 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 54 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 60 | 4 | 0 | 1 | 4 | 3 | 0 | 3 | 0 | 18 | 5 |
| 61 | 17 | 0 | 11 | 1 | 19 | 3 | 14 | 5 | 107 | 25 |
| 63 | 3 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 8 | 4 |
| 64 | 4 | 2 | 3 | 1 | 10 | 0 | 10 | 1 | 60 | 11 |
| 65 | 3 | 0 | 6 | 0 | 11 | 0 | 14 | 0 | 58 | 2 |
| 66 | 5 | 1 | 9 | 0 | 8 | 3 | 10 | 0 | 48 | 8 |
| 68 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 3 | 0 |
| 69 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 82 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 4 | 0 |
| 97 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 99 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| Total | 124 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1115 | 170 |

**Table C-7: Injuries and fatalities occurring from domestic fires by type of material ignited, 1986-1990.**

| Material Type | 1986 | | 1987 | | 1988 | | 1989 | | 1990 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Code | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | 4 | 0 | 4 | 1 | 5 | 4 | 1 | 0 | 2 | 0 |
| 011 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 099 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 111 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 141 | 4 | 0 | 1 | 0 | 2 | 0 | 5 | 0 | 1 | 0 |
| 199 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 |
| 221 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 231 | 7 | 2 | 5 | 2 | 3 | 1 | 2 | 0 | 6 | 0 |
| 241 | 4 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 261 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 271 | 6 | 0 | 8 | 1 | 5 | 0 | 12 | 3 | 10 | 0 |
| 311 | 14 | 1 | 15 | 0 | 17 | 1 | 22 | 1 | 18 | 0 |
| 321 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 331 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 341 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 342 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 351 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| 361 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 371 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| 400 | 2 | 0 | 1 | 0 | 0 | 1 | 6 | 0 | 1 | 0 |
| 411 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 412 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 413 | 3 | 0 | 1 | 0 | 2 | 1 | 2 | 0 | 6 | 0 |
| 414 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 419 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 421 | 2 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 422 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| 431 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 439 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 441 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 449 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 452 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 500 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 511 | 2 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| 541 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 551 | 1 | 0 | 7 | 0 | 3 | 0 | 0 | 2 | 1 | 0 |
| 561 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 571 | 1 | 0 | 0 | 0 | 1 | 2 | 2 | 1 | 3 | 0 |
| 581 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 599 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 600 | 0 | 0 | 3 | 1 | 1 | 0 | 1 | 2 | 2 | 0 |
| 611 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 621 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 631 | 3 | 1 | 4 | 0 | 5 | 4 | 3 | 4 | 12 | 3 |
| 641 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 651 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 671 | 5 | 0 | 2 | 2 | 4 | 0 | 5 | 0 | 4 | 0 |
| 672 | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 681 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 |
| 699 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 700 | 2 | 3 | 2 | 0 | 3 | 2 | 7 | 0 | 8 | 1 |
| 711 | 8 | 2 | 10 | 4 | 8 | 6 | 11 | 3 | 19 | 2 |
| 721 | 10 | 0 | 8 | 2 | 4 | 1 | 5 | 1 | 9 | 0 |
| 731 | 4 | 0 | 10 | 1 | 2 | 0 | 4 | 1 | 7 | 0 |
| 899 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 900 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 971 | 7 | 13 | 16 | 5 | 10 | 2 | 7 | 0 | 13 | 4 |
| 999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 95 | 23 | 113 | 19 | 83 | 27 | 114 | 19 | 128 | 10 |

**Table C-8: Injuries and fatalities occurring from domestic fires by type of material ignited, 1990-1994.**

| Material Type Code | 1991 | | 1992 | | 1993 | | 1994 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | 5 | 2 | 1 | 0 | 1 | 1 | 5 | 0 | 28 | 8 |
| 011 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 099 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 111 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 0 |
| 141 | 0 | 0 | 3 | 0 | 1 | 0 | 1 | 0 | 18 | 0 |
| 199 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |
| 200 | 1 | 0 | 0 | 1 | 2 | 0 | 2 | 0 | 10 | 1 |
| 221 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 1 |
| 231 | 4 | 2 | 5 | 2 | 6 | 1 | 8 | 0 | 46 | 10 |
| 241 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 7 | 2 |
| 261 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 271 | 20 | 1 | 18 | 0 | 21 | 0 | 18 | 0 | 118 | 5 |
| 311 | 16 | 0 | 18 | 0 | 16 | 1 | 34 | 2 | 170 | 6 |
| 321 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 331 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 7 | 0 |
| 341 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 342 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 0 |
| 351 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 361 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 371 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 400 | 3 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 15 | 1 |
| 411 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 0 |
| 412 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 1 | 5 | 1 |
| 413 | 3 | 1 | 4 | 0 | 1 | 0 | 0 | 0 | 22 | 2 |
| 414 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 4 | 0 |
| 419 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 6 | 0 |
| 421 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 0 |
| 422 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 0 |
| 431 | 0 | 0 | 1 | 1 | 7 | 0 | 4 | 0 | 12 | 1 |
| 439 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 |
| 441 | 0 | 0 | 0 | 1 | 3 | 0 | 4 | 1 | 7 | 2 |
| 449 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 452 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 511 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| 541 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 |
| 551 | 1 | 0 | 2 | 0 | 3 | 1 | 5 | 0 | 23 | 3 |
| 561 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 571 | 5 | 1 | 3 | 0 | 8 | 1 | 2 | 0 | 25 | 5 |
| 581 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 599 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 600 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 9 | 3 |
| 611 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 621 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 631 | 6 | 0 | 4 | 0 | 14 | 7 | 13 | 4 | 64 | 23 |
| 641 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 651 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 1 |
| 671 | 9 | 0 | 7 | 0 | 6 | 0 | 4 | 0 | 46 | 2 |
| 672 | 1 | 0 | 1 | 0 | 2 | 0 | 4 | 0 | 12 | 0 |
| 681 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 2 |
| 699 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 700 | 7 | 0 | 2 | 2 | 1 | 1 | 4 | 0 | 36 | 9 |
| 711 | 17 | 1 | 10 | 0 | 19 | 1 | 26 | 1 | 128 | 20 |
| 721 | 13 | 2 | 15 | 6 | 17 | 2 | 28 | 2 | 109 | 16 |
| 731 | 1 | 0 | 8 | 0 | 6 | 1 | 5 | 6 | 47 | 9 |
| 899 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 900 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| 971 | 5 | 4 | 2 | 2 | 1 | 0 | 1 | 0 | 62 | 30 |
| 999 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 |
| Total | 124 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1115 | 170 |

**Table C-9: Injuries and fatalities occurring from domestic fires by the form of material ignited, 1986-1990.**

| Form of | 1986 | | 1987 | | 1988 | | 1989 | | 1990 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Material Code | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | 3 | 0 | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 100 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 |
| 111 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 121 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 4 | 0 |
| 131 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 141 | 1 | 0 | 4 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 151 | 1 | 1 | 5 | 0 | 4 | 0 | 4 | 1 | 4 | 3 |
| 161 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 171 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 181 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 199 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200 | 0 | 2 | 1 | 0 | 0 | 4 | 1 | 0 | 1 | 0 |
| 211 | 3 | 1 | 3 | 2 | 4 | 5 | 6 | 1 | 6 | 0 |
| 221 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 231 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 |
| 241 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 251 | 1 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 2 | 1 |
| 261 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 299 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 0 |
| 311 | 7 | 2 | 11 | 0 | 4 | 2 | 8 | 1 | 4 | 0 |
| 321 | 12 | 2 | 21 | 6 | 9 | 1 | 16 | 4 | 20 | 2 |
| 331 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 341 | 3 | 0 | 3 | 0 | 3 | 0 | 1 | 1 | 16 | 0 |
| 351 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| 361 | 2 | 0 | 3 | 0 | 1 | 0 | 3 | 0 | 2 | 0 |
| 421 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 431 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 441 | 4 | 0 | 3 | 0 | 2 | 0 | 1 | 0 | 4 | 0 |
| 451 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 511 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 5 | 0 |
| 521 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 551 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 581 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 599 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 600 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 611 | 3 | 0 | 0 | 0 | 3 | 0 | 4 | 0 | 4 | 0 |
| 651 | 10 | 2 | 7 | 2 | 4 | 1 | 6 | 0 | 9 | 0 |
| 711 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 731 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 751 | 2 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 2 | 0 |
| 761 | 21 | 1 | 23 | 1 | 20 | 3 | 36 | 5 | 33 | 0 |
| 781 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 799 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 811 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 821 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| 831 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 841 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 851 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 861 | 3 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 |
| 871 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 881 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 899 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 900 | 9 | 11 | 16 | 5 | 11 | 2 | 6 | 2 | 5 | 3 |
| 971 | 1 | 0 | 2 | 1 | 2 | 3 | 1 | 0 | 2 | 0 |
| 999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 95 | 23 | 113 | 19 | 83 | 27 | 114 | 19 | 128 | 10 |

**Table C-10: Injuries and fatalities occurring from domestic fires by the form of material ignited, 1990-1994.**

| Form of Material Code | 1991 | | 1992 | | 1993 | | 1994 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 2 |
| 100 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 5 | 4 |
| 111 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 121 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 11 | 0 |
| 131 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 4 | 0 |
| 141 | 0 | 0 | 3 | 0 | 4 | 3 | 6 | 4 | 20 | 7 |
| 151 | 3 | 0 | 0 | 0 | 1 | 0 | 5 | 0 | 27 | 5 |
| 161 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 7 | 1 |
| 171 | 1 | 0 | 0 | 0 | 6 | 4 | 6 | 1 | 15 | 5 |
| 181 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 0 |
| 199 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 200 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 6 |
| 211 | 3 | 0 | 11 | 1 | 7 | 1 | 13 | 2 | 56 | 13 |
| 221 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 |
| 231 | 1 | 0 | 1 | 0 | 4 | 0 | 2 | 0 | 9 | 3 |
| 241 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 251 | 0 | 0 | 2 | 0 | 7 | 0 | 3 | 1 | 18 | 3 |
| 261 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 299 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 300 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 4 | 3 |
| 311 | 9 | 0 | 2 | 0 | 11 | 0 | 12 | 0 | 68 | 5 |
| 321 | 17 | 2 | 15 | 5 | 23 | 4 | 31 | 4 | 164 | 30 |
| 331 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| 341 | 1 | 0 | 4 | 0 | 6 | 0 | 10 | 0 | 47 | 1 |
| 351 | 0 | 0 | 1 | 2 | 0 | 0 | 3 | 0 | 5 | 4 |
| 361 | 5 | 0 | 2 | 0 | 2 | 1 | 5 | 0 | 25 | 1 |
| 421 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 |
| 431 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 441 | 2 | 0 | 4 | 0 | 4 | 0 | 3 | 0 | 27 | 0 |
| 451 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 5 | 0 |
| 511 | 3 | 1 | 3 | 0 | 1 | 0 | 0 | 0 | 15 | 2 |
| 521 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 |
| 551 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 581 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 4 | 0 |
| 599 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 600 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 |
| 611 | 1 | 1 | 2 | 1 | 5 | 0 | 7 | 0 | 29 | 2 |
| 651 | 4 | 2 | 8 | 1 | 5 | 1 | 9 | 0 | 62 | 9 |
| 711 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 |
| 731 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 751 | 6 | 0 | 3 | 0 | 2 | 0 | 3 | 0 | 24 | 0 |
| 761 | 38 | 2 | 38 | 0 | 46 | 3 | 51 | 3 | 306 | 18 |
| 781 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 799 | 1 | 0 | 2 | 0 | 4 | 0 | 1 | 0 | 12 | 0 |
| 811 | 5 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 6 | 2 |
| 821 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 831 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 841 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 851 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 861 | 2 | 0 | 1 | 2 | 2 | 0 | 2 | 0 | 13 | 3 |
| 871 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 881 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 |
| 899 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 900 | 8 | 3 | 1 | 2 | 1 | 3 | 2 | 0 | 59 | 31 |
| 971 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 9 | 5 |
| 999 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |
| Total | 124 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1115 | 170 |

**Table C-11: Injuries and fatalities occurring from domestic fires by the ignition factor, 1986-1990.**

| Ignition | 1986 | | 1987 | | 1988 | | 1989 | | 1990 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Factor Code | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 | 1 | 2 | 0 | 1 | 5 | 3 | 5 | 0 | 3 | 0 |
| 14 | 3 | 2 | 1 | 0 | 5 | 0 | 4 | 0 | 4 | 1 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30 | 8 | 0 | 2 | 2 | 3 | 3 | 7 | 1 | 9 | 0 |
| 31 | 8 | 1 | 7 | 4 | 4 | 7 | 4 | 3 | 6 | 0 |
| 33 | 6 | 4 | 18 | 0 | 9 | 2 | 8 | 3 | 6 | 1 |
| 34 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 35 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 0 |
| 36 | 7 | 4 | 10 | 0 | 3 | 1 | 8 | 2 | 6 | 0 |
| 37 | 3 | 1 | 0 | 1 | 2 | 0 | 1 | 0 | 4 | 0 |
| 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 2 | 0 |
| 41 | 7 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 4 | 0 |
| 42 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 43 | 4 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 44 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 45 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 46 | 5 | 0 | 5 | 1 | 3 | 1 | 9 | 2 | 9 | 0 |
| 47 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 48 | 0 | 0 | 5 | 0 | 3 | 0 | 4 | 0 | 0 | 0 |
| 49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50 | 0 | 0 | 2 | 1 | 1 | 1 | 3 | 0 | 3 | 0 |
| 51 | 1 | 0 | 3 | 0 | 0 | 0 | 5 | 0 | 5 | 0 |
| 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 53 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 54 | 2 | 0 | 4 | 0 | 3 | 0 | 5 | 0 | 4 | 0 |
| 55 | 3 | 2 | 1 | 0 | 4 | 0 | 1 | 0 | 4 | 0 |
| 56 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 61 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 62 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 63 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 3 | 0 |
| 64 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 70 | 0 | 2 | 1 | 0 | 3 | 0 | 3 | 1 | 4 | 2 |
| 71 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 |
| 72 | 4 | 0 | 1 | 0 | 4 | 1 | 6 | 2 | 2 | 1 |
| 73 | 16 | 1 | 18 | 2 | 12 | 1 | 23 | 1 | 33 | 0 |
| 74 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 75 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 76 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 77 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 79 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 86 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90 | 7 | 4 | 12 | 6 | 10 | 7 | 5 | 1 | 8 | 4 |
| 91 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 93 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| 95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 95 | 23 | 113 | 19 | 83 | 27 | 114 | 19 | 128 | 10 |

**Table C-12: Injuries and fatalities occurring from domestic fires by the ignition factor, 1990-1994.**

| Ignition Factor Code | 1991 | | 1992 | | 1993 | | 1994 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 11 | 0 | 0 | 1 | 0 | 6 | 0 | 6 | 0 | 14 | 0 |
| 13 | 5 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 20 | 10 |
| 14 | 2 | 0 | 3 | 1 | 3 | 0 | 3 | 0 | 28 | 4 |
| 21 | 0 | 0 | 0 | 0 | 2 | 1 | 5 | 0 | 7 | 1 |
| 30 | 9 | 0 | 2 | 2 | 1 | 1 | 1 | 0 | 42 | 9 |
| 31 | 13 | 0 | 12 | 2 | 16 | 1 | 14 | 4 | 84 | 22 |
| 33 | 15 | 2 | 12 | 1 | 20 | 4 | 22 | 7 | 116 | 24 |
| 34 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 6 | 0 |
| 35 | 2 | 0 | 4 | 0 | 6 | 2 | 7 | 1 | 23 | 3 |
| 36 | 7 | 0 | 5 | 2 | 15 | 0 | 21 | 1 | 82 | 10 |
| 37 | 4 | 1 | 1 | 1 | 7 | 0 | 2 | 1 | 24 | 5 |
| 38 | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 5 | 0 |
| 39 | 0 | 0 | 4 | 0 | 4 | 3 | 2 | 0 | 10 | 3 |
| 40 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 0 |
| 41 | 1 | 0 | 2 | 0 | 1 | 0 | 5 | 0 | 25 | 0 |
| 42 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 |
| 43 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 12 | 0 |
| 44 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 |
| 45 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 7 | 0 |
| 46 | 3 | 1 | 7 | 3 | 5 | 0 | 10 | 0 | 56 | 8 |
| 47 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| 48 | 3 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 20 | 1 |
| 49 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 50 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 12 | 3 |
| 51 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 20 | 0 |
| 52 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |
| 53 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 0 |
| 54 | 3 | 0 | 0 | 0 | 6 | 0 | 4 | 0 | 31 | 0 |
| 55 | 2 | 0 | 1 | 0 | 3 | 0 | 4 | 0 | 23 | 2 |
| 56 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 8 | 1 |
| 57 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 59 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 62 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 1 |
| 63 | 0 | 0 | 0 | 0 | 5 | 3 | 1 | 0 | 11 | 6 |
| 64 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 6 | 0 |
| 70 | 9 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 22 | 6 |
| 71 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 8 | 0 |
| 72 | 6 | 0 | 6 | 0 | 3 | 1 | 7 | 0 | 39 | 5 |
| 73 | 26 | 1 | 22 | 0 | 28 | 2 | 38 | 1 | 216 | 9 |
| 74 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 8 | 1 |
| 75 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0 |
| 76 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 1 |
| 77 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 |
| 78 | 0 | 0 | 0 | 0 | 4 | 0 | 5 | 0 | 9 | 0 |
| 79 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 86 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| 90 | 6 | 6 | 2 | 0 | 1 | 3 | 9 | 1 | 60 | 32 |
| 91 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 93 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 95 | 0 | 0 | 2 | 0 | 3 | 0 | 5 | 1 | 10 | 1 |
| Total | 124 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1115 | 170 |

# Appendix D

## Features of domestic fire casualties by gender

## Contents:

**Table D-1: Location of victim at time of injury by gender, 1986-1990.**

| Location Code | Gender | 1986 | | 1987 | | 1988 | | 1989 | | 1990 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | M | 0 | 1 | 2 | 0 | 3 | 0 | 2 | 0 | 1 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 |
| 1 | M | 13 | 1 | 12 | 2 | 14 | 3 | 9 | 2 | 15 | 0 |
| | F | 4 | 2 | 9 | 2 | 4 | 1 | 7 | 0 | 4 | 1 |
| 2 | M | 18 | 7 | 21 | 5 | 10 | 6 | 16 | 5 | 8 | 2 |
| | F | 8 | 6 | 8 | 5 | 7 | 5 | 7 | 2 | 12 | 2 |
| 3 | M | 6 | 2 | 14 | 3 | 9 | 5 | 15 | 6 | 14 | 0 |
| | F | 3 | 0 | 10 | 1 | 4 | 2 | 16 | 0 | 16 | 1 |
| 4 | M | 21 | 4 | 13 | 1 | 14 | 5 | 17 | 3 | 15 | 2 |
| | F | 16 | 0 | 15 | 0 | 10 | 0 | 10 | 1 | 26 | 1 |
| 5 | M | 4 | 0 | 3 | 0 | 3 | 0 | 7 | 0 | 4 | 0 |
| | F | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 |
| 6 | M | 1 | 0 | 3 | 0 | 3 | 0 | 6 | 0 | 5 | 0 |
| | F | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 |
| 8 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| subtotal | | 95 | 23 | 111 | 19 | 82 | 27 | 114 | 19 | 128 | 10 |
| non recorded gender | | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Total | | 95 | 23 | 113 | 19 | 83 | 27 | 114 | 19 | 128 | 10 |

**Table D-2: Location of victim at time of injury by gender, 1991-1994.**

| Location Code | Gender | 1991 | | 1992 | | 1993 | | 1994 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | M | 2 | 0 | 3 | 0 | 5 | 0 | 0 | 0 | 18 | 1 |
| | F | 2 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 8 | 4 |
| 1 | M | 13 | 2 | 15 | 4 | 14 | 0 | 18 | 2 | 123 | 16 |
| | F | 4 | 0 | 6 | 2 | 6 | 0 | 10 | 1 | 54 | 9 |
| 2 | M | 12 | 4 | 13 | 4 | 25 | 6 | 41 | 2 | 164 | 41 |
| | F | 18 | 2 | 13 | 4 | 17 | 1 | 26 | 1 | 116 | 28 |
| 3 | M | 10 | 2 | 15 | 0 | 23 | 3 | 26 | 5 | 132 | 26 |
| | F | 10 | 0 | 10 | 0 | 19 | 5 | 20 | 1 | 108 | 10 |
| 4 | M | 20 | 1 | 10 | 1 | 15 | 3 | 19 | 3 | 144 | 23 |
| | F | 23 | 2 | 13 | 1 | 12 | 1 | 20 | 2 | 145 | 8 |
| 5 | M | 4 | 0 | 3 | 0 | 4 | 0 | 5 | 0 | 37 | 0 |
| | F | 2 | 0 | 1 | 0 | 5 | 0 | 1 | 0 | 13 | 0 |
| 6 | M | 2 | 0 | 3 | 1 | 4 | 0 | 5 | 0 | 32 | 1 |
| | F | 0 | 0 | 1 | 0 | 2 | 1 | 3 | 0 | 11 | 1 |
| 8 | M | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 2 | 1 |
| | F | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 3 | 0 |
| 9 | M | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| subtotal | | 123 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1111 | 170 |
| non recorded gender | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| Total | | 124 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1115 | 170 |

Notes: the location codes for the victims whose gender were not recorded were:
Codes 0 and 4 in 1987; Code 2 in 1988; Code 3 in 1991.

**Table D-3: Condition of victim before injury by gender, 1986-1990.**

| Before Injury Code | Gender | 1986 | | 1987 | | 1988 | | 1989 | | 1990 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | M | 3 | 3 | 4 | 4 | 5 | 2 | 3 | 2 | 3 | 1 |
| | F | 0 | 1 | 2 | 4 | 0 | 3 | 1 | 0 | 5 | 3 |
| 1 | M | 19 | 8 | 25 | 5 | 15 | 12 | 20 | 5 | 18 | 2 |
| | F | 10 | 6 | 16 | 1 | 12 | 4 | 11 | 1 | 19 | 3 |
| 2 | M | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | F | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | M | 1 | 2 | 7 | 1 | 2 | 1 | 3 | 2 | 10 | 0 |
| | F | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 3 | 0 |
| 4 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | M | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 5 | 0 | 0 |
| | F | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 6 | M | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |
| 7 | M | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 8 | M | 37 | 2 | 31 | 1 | 34 | 2 | 40 | 1 | 31 | 1 |
| | F | 19 | 0 | 23 | 2 | 12 | 1 | 28 | 0 | 38 | 0 |
| 9 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| subtotal | | 95 | 23 | 111 | 19 | 82 | 27 | 114 | 19 | 128 | 10 |
| non recorded gender | | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Total | | 95 | 23 | 113 | 19 | 83 | 27 | 114 | 19 | 128 | 10 |

**Table D-4: Condition of victim before injury by gender, 1990-1994.**

| Before Injury Code | Gender | 1991 | | 1992 | | 1993 | | 1994 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | M | 8 | 5 | 4 | 2 | 8 | 2 | 6 | 0 | 44 | 21 |
| | F | 2 | 2 | 3 | 0 | 2 | 2 | 4 | 1 | 19 | 16 |
| 1 | M | 21 | 3 | 23 | 3 | 33 | 5 | 29 | 9 | 203 | 52 |
| | F | 17 | 1 | 16 | 0 | 23 | 4 | 28 | 2 | 152 | 22 |
| 2 | M | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 1 |
| | F | 1 | 2 | 0 | 2 | 0 | 0 | 1 | 1 | 4 | 6 |
| 3 | M | 5 | 0 | 2 | 2 | 8 | 4 | 5 | 2 | 43 | 14 |
| | F | 3 | 2 | 3 | 0 | 4 | 1 | 0 | 0 | 17 | 3 |
| 4 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | M | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 6 | 7 |
| | F | 1 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 4 | 5 |
| 6 | M | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 0 |
| | F | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 6 | 1 |
| 7 | M | 0 | 1 | 0 | 0 | 3 | 0 | 1 | 0 | 6 | 1 |
| | F | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 0 |
| 8 | M | 27 | 0 | 33 | 3 | 36 | 1 | 67 | 1 | 336 | 12 |
| | F | 35 | 0 | 21 | 2 | 31 | 1 | 41 | 1 | 248 | 7 |
| 9 | M | 0 | 0 | 0 | 0 | 1 | 1 | 6 | 0 | 7 | 1 |
| | F | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 1 | 5 | 1 |
| subtotal | | 123 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1111 | 170 |
| non recorded gender | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| Total | | 124 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1115 | 170 |

Notes: the before injury codes for the victims whose gender were not recorded were:
Codes 3 and 8 in 1987; Code 1 in 1988; Code 1 in 1991.

**Table D-5: Condition preventing escape of victim by gender, 1986-1990.**

| Preventing Escape Code | Gender | 1986 | | 1987 | | 1988 | | 1989 | | 1990 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | M | 8 | 5 | 3 | 5 | 5 | 4 | 2 | 6 | 4 | 2 |
| | F | 1 | 0 | 3 | 4 | 1 | 2 | 4 | 1 | 10 | 3 |
| 1 | M | 10 | 2 | 8 | 1 | 3 | 4 | 7 | 3 | 5 | 1 |
| | F | 1 | 0 | 8 | 3 | 0 | 1 | 5 | 1 | 1 | 1 |
| 2 | M | 3 | 2 | 9 | 0 | 2 | 6 | 2 | 5 | 2 | 0 |
| | F | 3 | 3 | 3 | 0 | 1 | 3 | 3 | 1 | 4 | 0 |
| 3 | M | 1 | 0 | 3 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| | F | 1 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 4 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | M | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | M | 0 | 2 | 3 | 1 | 1 | 1 | 2 | 0 | 3 | 0 |
| | F | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 |
| 7 | M | 0 | 0 | 4 | 1 | 4 | 1 | 6 | 1 | 3 | 0 |
| | F | 2 | 1 | 2 | 1 | 2 | 0 | 2 | 0 | 5 | 0 |
| 8 | M | 41 | 3 | 37 | 2 | 40 | 1 | 51 | 1 | 45 | 1 |
| | F | 22 | 3 | 24 | 0 | 21 | 1 | 28 | 0 | 44 | 2 |
| 9 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| subtotal | | 95 | 23 | 111 | 19 | 82 | 27 | 114 | 19 | 128 | 10 |
| non recorded gender | | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Total | | 95 | 23 | 113 | 19 | 83 | 27 | 114 | 19 | 128 | 10 |

**Table D-6: Condition preventing escape of victim by gender, 1991-1994.**

| Preventing Escape Code | Gender | 1991 | | 1992 | | 1993 | | 1994 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | M | 9 | 5 | 6 | 1 | 8 | 4 | 7 | 0 | 52 | 32 |
| | F | 4 | 3 | 4 | 0 | 1 | 3 | 3 | 0 | 31 | 16 |
| 1 | M | 0 | 1 | 7 | 2 | 4 | 2 | 10 | 4 | 54 | 20 |
| | F | 2 | 1 | 0 | 1 | 2 | 1 | 8 | 2 | 27 | 11 |
| 2 | M | 2 | 0 | 2 | 1 | 5 | 0 | 5 | 1 | 32 | 15 |
| | F | 2 | 1 | 3 | 2 | 1 | 1 | 9 | 0 | 29 | 11 |
| 3 | M | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 9 | 1 |
| | F | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 1 |
| 4 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | M | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 6 | 3 |
| | F | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 3 | 3 |
| 6 | M | 2 | 0 | 2 | 1 | 3 | 1 | 5 | 1 | 21 | 7 |
| | F | 4 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 12 | 4 |
| 7 | M | 2 | 0 | 4 | 0 | 2 | 1 | 5 | 2 | 30 | 6 |
| | F | 3 | 0 | 4 | 0 | 4 | 1 | 4 | 3 | 28 | 6 |
| 8 | M | 47 | 3 | 41 | 5 | 61 | 4 | 78 | 2 | 441 | 22 |
| | F | 45 | 1 | 33 | 0 | 53 | 2 | 51 | 0 | 321 | 9 |
| 9 | M | 0 | 0 | 0 | 0 | 6 | 1 | 2 | 2 | 8 | 3 |
| | F | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 |
| subtotal | | 123 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1111 | 170 |
| non recorded gender | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| Total | | 124 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1115 | 170 |

Notes: the preventing escape codes for the victims whose gender were not recorded were:
Codes 6 and 8 in 1987; Code 8 in 1988; Code 0 in 1991.

**Table D-7: Activity of victim at time of injury by gender, 1986-1990.**

| Activity Code | Gender | 1986 | | 1987 | | 1988 | | 1989 | | 1990 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | M | 3 | 5 | 6 | 3 | 7 | 3 | 7 | 5 | 6 | 2 |
| | F | 2 | 0 | 3 | 2 | 0 | 3 | 5 | 1 | 12 | 3 |
| 1 | M | 11 | 5 | 8 | 2 | 9 | 4 | 9 | 4 | 10 | 1 |
| | F | 10 | 0 | 8 | 1 | 3 | 1 | 8 | 1 | 8 | 1 |
| 2 | M | 1 | 0 | 5 | 0 | 4 | 2 | 8 | 0 | 3 | 0 |
| | F | 3 | 0 | 2 | 0 | 2 | 0 | 4 | 0 | 4 | 0 |
| 3 | M | 29 | 0 | 26 | 0 | 20 | 0 | 32 | 0 | 25 | 0 |
| | F | 9 | 0 | 13 | 0 | 7 | 0 | 18 | 0 | 25 | 0 |
| 4 | M | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | F | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 5 | M | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 |
| | F | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 6 | M | 10 | 5 | 15 | 5 | 10 | 6 | 10 | 4 | 13 | 1 |
| | F | 6 | 7 | 7 | 1 | 9 | 4 | 4 | 1 | 12 | 2 |
| 7 | M | 3 | 0 | 2 | 0 | 0 | 3 | 3 | 3 | 1 | 0 |
| | F | 2 | 0 | 4 | 2 | 2 | 0 | 2 | 0 | 2 | 0 |
| 8 | M | 4 | 0 | 4 | 1 | 4 | 1 | 1 | 0 | 2 | 0 |
| | F | 0 | 1 | 3 | 2 | 3 | 0 | 1 | 0 | 2 | 0 |
| 9 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| subtotal | | 95 | 23 | 111 | 19 | 82 | 27 | 114 | 19 | 128 | 10 |
| .non recorded gender | | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Total | | 95 | 23 | 113 | 19 | 83 | 27 | 114 | 19 | 128 | 10 |

**Table D-8: Activity of victim at time of injury by gender, 1991-1994.**

| Activity Code | Gender | 1991 | | 1992 | | 1993 | | 1994 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | M | 5 | 3 | 6 | 1 | 8 | 2 | 3 | 2 | 51 | 26 |
| | F | 4 | 3 | 8 | 2 | 3 | 1 | 3 | 0 | 40 | 15 |
| 1 | M | 6 | 0 | 9 | 1 | 14 | 2 | 17 | 3 | 93 | 22 |
| | F | 9 | 3 | 3 | 0 | 9 | 1 | 18 | 1 | 76 | 9 |
| 2 | M | 8 | 0 | 3 | 0 | 4 | 0 | 11 | 0 | 47 | 2 |
| | F | 2 | 0 | 1 | 0 | 2 | 0 | 2 | 1 | 22 | 1 |
| 3 | M | 26 | 0 | 30 | 1 | 28 | 0 | 51 | 1 | 267 | 2 |
| | F | 28 | 0 | 17 | 1 | 23 | 1 | 36 | 0 | 176 | 2 |
| 4 | M | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 0 |
| | F | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 5 | M | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 9 | 0 |
| | F | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 6 | 0 |
| 6 | M | 12 | 4 | 6 | 4 | 24 | 7 | 15 | 6 | 115 | 42 |
| | F | 13 | 1 | 8 | 0 | 11 | 4 | 11 | 3 | 81 | 23 |
| 7 | M | 1 | 0 | 2 | 0 | 1 | 2 | 2 | 0 | 15 | 8 |
| | F | 2 | 0 | 4 | 3 | 4 | 1 | 1 | 0 | 23 | 6 |
| 8 | M | 5 | 2 | 3 | 3 | 4 | 0 | 6 | 0 | 33 | 7 |
| | F | 1 | 0 | 1 | 1 | 7 | 0 | 4 | 1 | 22 | 5 |
| 9 | M | 0 | 0 | 3 | 0 | 8 | 0 | 5 | 0 | 16 | 0 |
| | F | 0 | 0 | 3 | 0 | 4 | 0 | 4 | 0 | 11 | 0 |
| subtotal | | 123 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1111 | 170 |
| .non recorded gender | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| Total | | 124 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1115 | 170 |

Notes: the activity codes for the victims whose gender were not recorded were:
Codes 2 and 6 in 1987; Code 3 in 1988; Code 6 in 1991.

**Table D-9: Cause of injury received by the victim by gender, 1986-1990.**

| Injury Cause Code | Gender | 1986 | | 1987 | | 1988 | | 1989 | | 1990 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | M | 2 | 2 | 1 | 2 | 3 | 0 | 3 | 3 | 2 | 1 |
| | F | 1 | 0 | 0 | 3 | 1 | 0 | 0 | 1 | 5 | 2 |
| 1 | M | 0 | 1 | 1 | 0 | 3 | 2 | 1 | 3 | 3 | 0 |
| | F | 0 | 0 | 2 | 0 | 1 | 0 | 3 | 0 | 0 | 0 |
| 2 | M | 51 | 12 | 50 | 9 | 36 | 16 | 54 | 9 | 44 | 3 |
| | F | 22 | 8 | 34 | 5 | 19 | 8 | 34 | 2 | 53 | 4 |
| 3 | M | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 4 | M | 1 | 0 | 1 | 0 | 2 | 0 | 1 | 1 | 4 | 0 |
| | F | 2 | 0 | 3 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| 5 | M | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 0 |
| | F | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 6 | M | 8 | 0 | 12 | 0 | 8 | 0 | 9 | 0 | 5 | 0 |
| | F | 6 | 0 | 3 | 0 | 3 | 0 | 4 | 0 | 5 | 0 |
| 7 | M | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | M | 1 | 0 | 1 | 0 | 2 | 1 | 1 | 0 | 2 | 0 |
| | F | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 9 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| subtotal | | 95 | 23 | 111 | 19 | 82 | 27 | 114 | 19 | 128 | 10 |
| non recorded gender | | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Total | | 95 | 23 | 113 | 19 | 83 | 27 | 114 | 19 | 128 | 10 |

**Table D-10: Cause of injury received by the victim by gender, 1991-1994.**

| Injury Cause Code | Gender | 1991 | | 1992 | | 1993 | | 1994 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | M | 6 | 3 | 2 | 0 | 4 | 1 | 1 | 0 | 24 | 12 |
| | F | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 11 | 6 |
| 1 | M | 1 | 0 | 0 | 0 | 0 | 1 | 4 | 3 | 13 | 10 |
| | F | 0 | 2 | 0 | 1 | 1 | 1 | 2 | 2 | 9 | 6 |
| 2 | M | 47 | 5 | 57 | 8 | 76 | 8 | 93 | 9 | 508 | 79 |
| | F | 51 | 4 | 39 | 5 | 55 | 6 | 65 | 4 | 372 | 46 |
| 3 | M | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 0 | 5 | 1 |
| | F | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 2 |
| 4 | M | 2 | 0 | 0 | 1 | 4 | 0 | 2 | 0 | 17 | 2 |
| | F | 2 | 0 | 0 | 1 | 1 | 0 | 4 | 0 | 15 | 1 |
| 5 | M | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 6 | 1 |
| | F | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 |
| 6 | M | 6 | 0 | 2 | 0 | 4 | 0 | 10 | 0 | 64 | 0 |
| | F | 6 | 0 | 4 | 0 | 1 | 0 | 6 | 0 | 38 | 0 |
| 7 | M | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 5 | 0 |
| | F | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 8 | M | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 8 | 4 |
| | F | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 3 | 0 |
| 9 | M | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 3 | 0 |
| | F | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 |
| subtotal | | 123 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1111 | 170 |
| non recorded gender | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| Total | | 124 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1115 | 170 |

Notes: the injury cause codes for the victims whose gender were not recorded were:
Codes 1 and 6 in 1987; Code 2 in 1988; Code 2 in 1991.

**Table D-11: Nature of injury received by victim by gender, 1986-1990.**

| Injury Nature Code | Gender | 1986 | | 1987 | | 1988 | | 1989 | | 1990 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | M | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 |
| | F | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 3 | 3 |
| 1 | M | 8 | 9 | 13 | 6 | 6 | 14 | 6 | 14 | 8 | 1 |
| | F | 3 | 7 | 4 | 4 | 4 | 3 | 7 | 2 | 7 | 1 |
| 2 | M | 39 | 1 | 34 | 2 | 26 | 2 | 34 | 0 | 23 | 1 |
| | F | 13 | 1 | 19 | 3 | 9 | 3 | 16 | 0 | 17 | 0 |
| 3 | M | 12 | 3 | 16 | 2 | 15 | 3 | 25 | 2 | 26 | 2 |
| | F | 10 | 0 | 17 | 0 | 10 | 2 | 13 | 0 | 35 | 2 |
| 4 | M | 3 | 0 | 5 | 0 | 5 | 0 | 2 | 0 | 4 | 0 |
| | F | 2 | 0 | 3 | 0 | 1 | 0 | 2 | 0 | 1 | 0 |
| 5 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | M | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | F | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 7 | M | 1 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 |
| | F | 3 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 |
| 8 | M | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 9 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| subtotal | | 95 | 23 | 111 | 19 | 82 | 27 | 114 | 19 | 128 | 10 |
| non recorded gender | | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Total | | 95 | 23 | 113 | 19 | 83 | 27 | 114 | 19 | 128 | 10 |

**Table D-12: Nature of injury received by victim by gender, 1990-1994.**

| Injury Nature Code | Gender | 1991 | | 1992 | | 1993 | | 1994 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | M | 1 | 2 | 1 | 1 | 2 | 1 | 3 | 0 | 9 | 7 |
| | F | 0 | 2 | 1 | 0 | 2 | 0 | 1 | 0 | 9 | 7 |
| 1 | M | 14 | 4 | 1 | 8 | 12 | 9 | 16 | 10 | 84 | 75 |
| | F | 12 | 4 | 5 | 5 | 11 | 7 | 5 | 4 | 58 | 37 |
| 2 | M | 23 | 1 | 34 | 0 | 31 | 0 | 43 | 0 | 287 | 7 |
| | F | 12 | 0 | 12 | 2 | 15 | 0 | 32 | 0 | 145 | 9 |
| 3 | M | 20 | 2 | 26 | 0 | 41 | 3 | 44 | 2 | 225 | 19 |
| | F | 32 | 1 | 23 | 0 | 32 | 1 | 36 | 2 | 208 | 8 |
| 4 | M | 4 | 0 | 1 | 0 | 5 | 0 | 7 | 0 | 36 | 0 |
| | F | 2 | 0 | 2 | 0 | 1 | 0 | 3 | 0 | 17 | 0 |
| 5 | M | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | F | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 6 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 0 |
| 7 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| | F | 2 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 13 | 0 |
| 8 | M | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 9 | M | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |
| subtotal | | 123 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1111 | 170 |
| non recorded gender | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| Total | | 124 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1115 | 170 |

Notes: the nature of injury codes for the victims whose gender were not recorded were:
Codes 3 and 4 in 1987; Code 2 in 1988; Code 1 in 1991.

## Table D-13: Part of body injured by gender, 1990-1994.

| Part of Body Injured Code | Gender | 1986 | | 1987 | | 1988 | | 1989 | | 1990 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | M | 2 | 1 | 3 | 1 | 1 | 0 | 5 | 1 | 1 | 1 |
| | F | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 0 | 2 | 1 |
| 1 | M | 6 | 0 | 3 | 0 | 6 | 0 | 6 | 0 | 6 | 0 |
| | F | 1 | 0 | 3 | 0 | 1 | 2 | 4 | 0 | 4 | 0 |
| 2 | M | 2 | 0 | 1 | 0 | 3 | 0 | 2 | 0 | 0 | 0 |
| | F | 3 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| 3 | M | 7 | 0 | 6 | 0 | 8 | 0 | 12 | 0 | 5 | 0 |
| | F | 6 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 |
| 4 | M | 1 | 0 | 5 | 0 | 3 | 0 | 0 | 0 | 1 | 0 |
| | F | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 5 | M | 17 | 0 | 24 | 0 | 7 | 0 | 15 | 0 | 13 | 0 |
| | F | 6 | 0 | 11 | 0 | 3 | 0 | 8 | 0 | 10 | 0 |
| 6 | M | 2 | 0 | 2 | 1 | 3 | 0 | 0 | 0 | 5 | 0 |
| | F | 1 | 0 | 4 | 0 | 3 | 1 | 0 | 0 | 2 | 0 |
| 7 | M | 14 | 4 | 16 | 3 | 16 | 3 | 26 | 5 | 27 | 1 |
| | F | 13 | 2 | 17 | 0 | 11 | 2 | 14 | 0 | 38 | 2 |
| 8 | M | 12 | 10 | 8 | 6 | 9 | 16 | 6 | 10 | 4 | 2 |
| | F | 0 | 6 | 1 | 7 | 3 | 3 | 10 | 3 | 6 | 3 |
| subtotal | | 95 | 23 | 111 | 19 | 82 | 27 | 114 | 19 | 128 | 10 |
| non recorded gender | | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Total | | 95 | 23 | 113 | 19 | 83 | 27 | 114 | 19 | 128 | 10 |

## Table D-14: Part of body injured by gender, 1990-1994.

| Part of Body Injured Code | Gender | 1991 | | 1992 | | 1993 | | 1994 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0 | M | | 4 | 1 | 0 | 2 | 1 | 3 | 0 | 18 | 9 |
| | F | 2 | 2 | 2 | 0 | 3 | 0 | 4 | 0 | 16 | 4 |
| 1 | M | 3 | 0 | 2 | 0 | 3 | 0 | 6 | 1 | 41 | 1 |
| | F | 1 | 0 | 0 | 0 | 4 | 0 | 5 | 0 | 23 | 2 |
| 2 | M | 1 | 0 | 2 | 1 | 3 | 0 | 4 | 0 | 18 | 1 |
| | F | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 10 | 0 |
| 3 | M | 5 | 0 | 4 | 0 | 2 | 0 | 8 | 0 | 57 | 0 |
| | F | 4 | 0 | 1 | 0 | 2 | 0 | 6 | 0 | 31 | 0 |
| 4 | M | 2 | 0 | 0 | 0 | 3 | 0 | 6 | 1 | 21 | 1 |
| | F | 5 | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 16 | 0 |
| 5 | M | 15 | 0 | 12 | 0 | 17 | 0 | 22 | 0 | 142 | 0 |
| | F | 8 | 0 | 8 | 0 | 11 | 0 | 10 | 0 | 75 | 0 |
| 6 | M | 0 | 0 | 2 | 0 | 2 | 0 | 3 | 0 | 19 | 1 |
| | F | 1 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 17 | 1 |
| 7 | M | 24 | 1 | 25 | 1 | 41 | 5 | 47 | 3 | 236 | 26 |
| | F | 37 | 2 | 26 | 0 | 37 | 3 | 40 | 3 | 233 | 14 |
| 8 | M | 13 | 4 | 15 | 8 | 18 | 7 | 16 | 7 | 101 | 70 |
| | F | 2 | 3 | 6 | 7 | 2 | 5 | 7 | 3 | 37 | 40 |
| subtotal | | 123 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1111 | 170 |
| non recorded gender | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| Total | | 124 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1115 | 170 |

Notes: the part of body injured codes for the victims whose gender were not recorded were:
Codes 4 and 7 in 1987; Code 8 in 1988; Code 7 in 1991.

# Appendix E

## Other fire features

## Contents

**Table E-1: Detector performance in domestic fires, 1986-1994.**

| Code | Year | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
| 0 | 2123 | 2484 | 2305 | 2197 | 2347 | 2497 | 2778 | 3029 | 2850 |
| 1 | 2191 | 2207 | 2100 | 2316 | 2259 | 2233 | 1902 | 1940 | 1921 |
| 2 | 2 | 5 | 6 | 9 | 13 | 10 | 14 | 7 | 5 |
| 3 | 0 | 0 | 1 | 0 | 3 | 3 | 6 | 2 | 4 |
| 4 | 0 | 0 | 0 | 2 | 2 | 2 | 1 | 3 | 3 |
| 5 | 0 | 0 | 0 | 4 | 1 | 0 | 3 | 3 | 1 |
| 6 | 0 | 0 | 0 | 1 | 0 | 3 | 1 | 0 | 0 |
| 7 | 2 | 0 | 8 | 10 | 22 | 20 | 33 | 33 | 33 |
| 8 | 0 | 0 | 0 | 2 | 6 | 6 | 10 | 5 | 11 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 5 |
| Total | 4318 | 4696 | 4420 | 4541 | 4653 | 4774 | 4750 | 5024 | 4833 |

| CODE | DESCRIPTION |
|---|---|
| 0 | Detector performance; insufficient information to classify further. Or was not recorded |
| 1 | No detectors present |
| 2 | Detector(s) in the space of fire origin operated |
| 3 | Detector(s) not in the space of fire origin operated |
| 4 | Detector(s) in the space of fire origin did not operate |
| 5 | Detector(s) not in the space of fire origin did not operate |
| 6 | Detector(s) in space of fire origin, but fire too small to require them to operate |
| 7 | Domestic smoke alarm in building operated |
| 8 | Domestic smoke alarm in building did not operate |
| 9 | Detector performance not classified |

**Table E-2: Alarm times for domestic fires that resulted in civilian casualties, 1986-1990**

| alarm | 1986 | | 1987 | | 1988 | | 1989 | | 1990 | |
|---|---|---|---|---|---|---|---|---|---|---|
| time | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0000-0100 | 4 | 0 | 14 | 1 | 0 | 2 | 4 | 1 | 7 | 0 |
| 0100-0200 | 7 | 0 | 4 | 1 | 6 | 1 | 2 | 2 | 8 | 1 |
| 0200-0300 | 4 | 2 | 4 | 0 | 5 | 8 | 1 | 1 | 5 | 1 |
| 0300-0400 | 4 | 0 | 4 | 1 | 1 | 0 | 5 | 2 | 1 | 2 |
| 0400-0500 | 1 | 0 | 2 | 1 | 3 | 0 | 1 | 3 | 1 | 1 |
| 0500-0600 | 0 | 0 | 5 | 0 | 5 | 1 | 5 | 0 | 12 | 0 |
| 0600-0700 | 7 | 0 | 1 | 0 | 2 | 4 | 9 | 1 | 4 | 1 |
| 0700-0800 | 0 | 0 | 7 | 2 | 3 | 5 | 1 | 0 | 2 | 0 |
| 0800-0900 | 4 | 0 | 4 | 0 | 1 | 1 | 6 | 3 | 4 | 0 |
| 0900-1000 | 6 | 0 | 4 | 3 | 3 | 2 | 11 | 5 | 4 | 0 |
| 1000-1100 | 1 | 0 | 0 | 1 | 6 | 0 | 2 | 0 | 9 | 0 |
| 1100-1200 | 2 | 1 | 2 | 0 | 4 | 0 | 5 | 0 | 4 | 1 |
| 1200-1300 | 3 | 1 | 10 | 0 | 2 | 0 | 2 | 1 | 3 | 0 |
| 1300-1400 | 5 | 0 | 2 | 0 | 1 | 0 | 2 | 0 | 4 | 1 |
| 1400-1500 | 2 | 1 | 7 | 0 | 2 | 0 | 2 | 0 | 4 | 0 |
| 1500-1600 | 1 | 0 | 1 | 1 | 2 | 1 | 1 | 0 | 3 | 0 |
| 1600-1700 | 2 | 2 | 6 | 0 | 1 | 0 | 8 | 0 | 6 | 0 |
| 1700-1800 | 3 | 0 | 11 | 2 | 6 | 0 | 5 | 0 | 4 | 0 |
| 1800-1900 | 12 | 2 | 6 | 2 | 6 | 0 | 10 | 0 | 8 | 0 |
| 1900-2000 | 10 | 2 | 5 | 0 | 7 | 0 | 6 | 0 | 6 | 0 |
| 2000-2100 | 8 | 3 | 5 | 0 | 8 | 1 | 9 | 0 | 9 | 0 |
| 2100-2200 | 2 | 1 | 6 | 3 | 3 | 0 | 4 | 0 | 5 | 0 |
| 2200-2300 | 2 | 1 | 0 | 0 | 2 | 1 | 5 | 0 | 7 | 1 |
| 2300-2400 | 5 | 7 | 3 | 1 | 4 | 0 | 8 | 0 | 8 | 1 |
| Total | 95 | 23 | 113 | 19 | 83 | 27 | 114 | 19 | 128 | 10 |

**Table E-3: Alarm times for domestic fires that resulted in civilian casualties, 1991-1994**

| alarm | 1991 | | 1992 | | 1993 | | 1994 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| time | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. | Inj. | Fat. |
| 0000-0100 | 8 | 1 | 8 | 2 | 4 | 1 | 12 | 7 | 61 | 15 |
| 0100-0200 | 4 | 2 | 6 | 0 | 6 | 3 | 10 | 0 | 53 | 10 |
| 0200-0300 | 8 | 1 | 4 | 0 | 2 | 1 | 12 | 1 | 45 | 15 |
| 0300-0400 | 3 | 0 | 9 | 1 | 7 | 4 | 9 | 1 | 43 | 11 |
| 0400-0500 | 9 | 2 | 6 | 3 | 4 | 2 | 3 | 2 | 30 | 14 |
| 0500-0600 | 6 | 1 | 1 | 1 | 1 | 0 | 5 | 0 | 40 | 3 |
| 0600-0700 | 6 | 0 | 4 | 1 | 4 | 2 | 4 | 0 | 41 | 9 |
| 0700-0800 | 2 | 0 | 1 | 0 | 5 | 1 | 8 | 0 | 29 | 8 |
| 0800-0900 | 3 | 3 | 2 | 1 | 7 | 2 | 6 | 0 | 37 | 10 |
| 0900-1000 | 3 | 0 | 5 | 1 | 8 | 0 | 13 | 1 | 57 | 12 |
| 1000-1100 | 3 | 0 | 4 | 2 | 6 | 0 | 8 | 0 | 39 | 3 |
| 1100-1200 | 4 | 1 | 0 | 0 | 3 | 0 | 8 | 0 | 32 | 3 |
| 1200-1300 | 5 | 1 | 3 | 1 | 11 | 0 | 6 | 0 | 45 | 4 |
| 1300-1400 | 5 | 1 | 2 | 2 | 6 | 2 | 3 | 0 | 30 | 6 |
| 1400-1500 | 6 | 0 | 2 | 0 | 4 | 0 | 12 | 1 | 41 | 2 |
| 1500-1600 | 2 | 0 | 3 | 0 | 4 | 0 | 5 | 0 | 22 | 2 |
| 1600-1700 | 4 | 0 | 7 | 0 | 9 | 0 | 6 | 1 | 49 | 3 |
| 1700-1800 | 10 | 0 | 9 | 1 | 12 | 0 | 10 | 0 | 70 | 3 |
| 1800-1900 | 8 | 0 | 7 | 0 | 10 | 1 | 14 | 0 | 81 | 5 |
| 1900-2000 | 5 | 0 | 6 | 0 | 5 | 0 | 10 | 1 | 60 | 3 |
| 2000-2100 | 10 | 0 | 4 | 0 | 2 | 0 | 10 | 1 | 65 | 5 |
| 2100-2200 | 5 | 0 | 12 | 0 | 11 | 0 | 4 | 0 | 52 | 4 |
| 2200-2300 | 4 | 0 | 3 | 1 | 10 | 0 | 11 | 2 | 44 | 6 |
| 2300-2400 | 1 | 3 | 1 | 0 | 13 | 2 | 6 | 0 | 49 | 14 |
| Total | 124 | 16 | 109 | 17 | 154 | 21 | 195 | 18 | 1115 | 170 |

**Table E-4: Alarm times for domestic fires, 1986-1994**

| Alarm time (hr) | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0000 - 0100 | 108 | 99 | 110 | 89 | 113 | 113 | 121 | 106 | 128 | 987 | 110 |
| 0100 - 0200 | 85 | 97 | 80 | 91 | 116 | 117 | 93 | 105 | 111 | 895 | 99 |
| 0200 - 0300 | 74 | 71 | 102 | 92 | 89 | 92 | 81 | 81 | 97 | 779 | 87 |
| 0300 - 0400 | 65 | 62 | 70 | 77 | 62 | 70 | 66 | 87 | 83 | 642 | 71 |
| 0400 - 0500 | 60 | 52 | 72 | 55 | 64 | 60 | 53 | 63 | 60 | 539 | 60 |
| 0500 - 0600 | 56 | 42 | 47 | 55 | 49 | 52 | 47 | 55 | 57 | 460 | 51 |
| 0600 - 0700 | 56 | 54 | 57 | 64 | 56 | 64 | 66 | 59 | 68 | 544 | 60 |
| 0700 - 0800 | 76 | 87 | 110 | 90 | 90 | 95 | 84 | 97 | 87 | 816 | 91 |
| 0800 - 0900 | 164 | 121 | 132 | 145 | 131 | 143 | 151 | 132 | 140 | 1259 | 140 |
| 0900 - 1000 | 139 | 142 | 143 | 177 | 177 | 161 | 137 | 163 | 164 | 1403 | 156 |
| 1000 - 1100 | 182 | 347 | 173 | 186 | 178 | 176 | 182 | 204 | 210 | 1838 | 204 |
| 1100 - 1200 | 205 | 209 | 205 | 201 | 194 | 234 | 208 | 231 | 191 | 1878 | 209 |
| 1200 - 1300 | 194 | 226 | 194 | 212 | 227 | 223 | 223 | 237 | 212 | 1948 | 216 |
| 1300 - 1400 | 207 | 192 | 183 | 175 | 220 | 220 | 241 | 229 | 199 | 1866 | 207 |
| 1400 - 1500 | 203 | 237 | 229 | 206 | 225 | 220 | 206 | 243 | 245 | 2014 | 224 |
| 1500 - 1600 | 242 | 231 | 232 | 238 | 242 | 227 | 247 | 277 | 254 | 2190 | 243 |
| 1600 - 1700 | 280 | 319 | 297 | 301 | 314 | 310 | 305 | 316 | 337 | 2779 | 309 |
| 1700 - 1800 | 375 | 452 | 410 | 406 | 430 | 447 | 457 | 468 | 432 | 3877 | 431 |
| 1800 - 1900 | 457 | 499 | 420 | 460 | 417 | 496 | 486 | 519 | 455 | 4209 | 468 |
| 1900 - 2000 | 345 | 385 | 339 | 359 | 377 | 350 | 393 | 412 | 369 | 3329 | 370 |
| 2000 - 2100 | 267 | 313 | 283 | 296 | 284 | 285 | 324 | 333 | 327 | 2712 | 301 |
| 2100 - 2200 | 194 | 228 | 228 | 247 | 230 | 304 | 245 | 234 | 245 | 2155 | 239 |
| 2200 - 2300 | 173 | 210 | 158 | 182 | 212 | 184 | 194 | 210 | 205 | 1728 | 192 |
| 2300 - 2400 | 110 | 162 | 145 | 136 | 155 | 130 | 139 | 162 | 156 | 1295 | 144 |

**Table E-5: Number of domestic fires that result in injury by the day of week, 1986-1994.**

| Weekday | Injury Causing Domestic Fires | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total | Average |
| Sun | 21 | 19 | 10 | 19 | 13 | 20 | 19 | 31 | 34 | 186 | 21 |
| Mon | 14 | 17 | 9 | 9 | 25 | 18 | 17 | 14 | 28 | 151 | 17 |
| Tues | 13 | 16 | 12 | 9 | 13 | 11 | 10 | 16 | 21 | 121 | 13 |
| Wed | 14 | 19 | 17 | 15 | 12 | 18 | 15 | 22 | 26 | 158 | 18 |
| Thur | 12 | 5 | 8 | 19 | 22 | 18 | 10 | 22 | 27 | 143 | 16 |
| Fri | 10 | 19 | 13 | 17 | 18 | 15 | 24 | 33 | 29 | 178 | 20 |
| Sat | 11 | 18 | 14 | 26 | 25 | 24 | 14 | 16 | 30 | 178 | 20 |
| Total | 95 | 113 | 83 | 114 | 128 | 124 | 109 | 154 | 195 | 1115 | 124 |

**Table E-6: Number of domestic fires that result in death by the day of week, 1986-1994.**

| Weekday | Fatality Causing Domestic Fires | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total | Average |
| Sun | 10 | 4 | 6 | 5 | 1 | 3 | 2 | 8 | 7 | 46 | 5 |
| Mon | 2 | 2 | 1 | 1 | 3 | 2 | 1 | 0 | 0 | 12 | 1 |
| Tues | 1 | 1 | 2 | 1 | 3 | 2 | 0 | 3 | 0 | 13 | 1 |
| Wed | 3 | 6 | 5 | 3 | 2 | 4 | 0 | 1 | 0 | 24 | 3 |
| Thur | 2 | 0 | 2 | 3 | 0 | 2 | 2 | 5 | 5 | 21 | 2 |
| Fri | 2 | 2 | 7 | 5 | 0 | 1 | 7 | 2 | 3 | 29 | 3 |
| Sat | 3 | 4 | 4 | 1 | 1 | 2 | 5 | 2 | 3 | 25 | 3 |
| Total | 23 | 19 | 27 | 19 | 10 | 16 | 17 | 21 | 18 | 170 | 19 |

**Table E-7: Number of domestic fires by the day of week, 1986-1994.**

| Weekday | Domestic Fires | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | Total | Average |
| Sun | 619 | 658 | 639 | 643 | 735 | 665 | 714 | 747 | 725 | 6145 | 683 |
| Mon | 600 | 669 | 557 | 632 | 639 | 690 | 655 | 672 | 699 | 5813 | 646 |
| Tue | 584 | 670 | 586 | 627 | 654 | 655 | 611 | 673 | 660 | 5720 | 636 |
| Wed | 614 | 706 | 617 | 622 | 612 | 639 | 710 | 688 | 673 | 5881 | 653 |
| Thur | 611 | 637 | 666 | 653 | 641 | 666 | 621 | 709 | 644 | 5848 | 650 |
| Fri | 586 | 636 | 648 | 653 | 650 | 697 | 692 | 771 | 668 | 6001 | 667 |
| Sat | 704 | 720 | 707 | 711 | 722 | 762 | 747 | 764 | 764 | 6601 | 733 |
| Total | 4318 | 4696 | 4420 | 4541 | 4653 | 4774 | 4750 | 5024 | 4833 | 42009 | 4668 |

**Table E-8: Figures for New Zealand used to calculate percentages domestic fires, injuries and fatalities.**

| New Zealand | 1986 | 1987 | 1988 | 1989 | 1990 |
|---|---|---|---|---|---|
| total fires | 21360 | 21914 | 22564 | 21518 | 22420 |
| domestic fires | 4318 | 4696 | 4420 | 4541 | 4653 |
| total injuries | 152 | 171 | 152 | 192 | 203 |
| domestic injuries | 95 | 113 | 83 | 114 | 128 |
| total deaths | 34 | 33 | 42 | 33 | 25 |
| domestic deaths | 23 | 19 | 27 | 19 | 10 |

| New Zealand | 1991 | 1992 | 1993 | 1994 | Average |
|---|---|---|---|---|---|
| total fires | 21825 | 20897 | 22580 | 23768 | 12197 |
| domestic fires | 4774 | 4750 | 5024 | 4833 | 2514 |
| total injuries | 173 | 166 | 221 | 271 | 97 |
| domestic injuries | 124 | 109 | 154 | 195 | 59 |
| total deaths | 21 | 31 | 34 | 39 | 19 |
| domestic deaths | 16 | 17 | 21 | 18 | 11 |

*Figures sourced from NZ FIRS database*

**Table E-9: Figures for Australia used to calculate percentages domestic fires, injuries and fatalities.**

| Australia | 1990 | 1991 | 1992 | 1993 | Average |
|---|---|---|---|---|---|
| total fires | 59944 | 68277 | 78701 | 64051 | 67743 |
| domestic fires | 9973 | 10589 | 12649 | 7892 | 10276 |
| total injuries | 879 | 1045 | 1063 | 1119 | 1027 |
| domestic injuries | 404 | 469 | 615 | 493 | 495 |
| total deaths | 107 | 100 | 136 | 139 | 121 |
| domestic deaths | 39 | 51 | 68 | 54 | 53 |

*Figures sourced from CSIRO, 1995 and CSIRO, 1993.*

**Table E-10: Figures for the United Kingdom used to calculate percentages domestic fires, injuries and fatalities.**

| United Kingdom | 1989 | 1990 | 1991 | 1992 | 1993 | Average |
|---|---|---|---|---|---|---|
| total fires | 456179 | 467019 | 436258 | 425600 | 451500 | 447311 |
| domestic fires | 64515 | 63200 | 64100 | 64500 | 65322 | 64327 |
| total injuries | 12697 | 12754 | 13547 | 13483 | 13594 | 13215 |
| domestic injuries | 10388 | 10457 | 11217 | 11219 | 11402 | 10937 |
| total deaths | 900 | 896 | 825 | 787 | 717 | 825 |
| domestic deaths | 642 | 627 | 610 | 576 | 536 | 598 |

*Figures sourced from Home Office, 1995; Home Office, 1993; Home Office, 1992; and Home Office, 1991*

**Table E-11: Figures for U.S.A. used to calculate percentages domestic fires, injuries and fatalities.**

| USA | average 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | Average |
|---|---|---|---|---|---|---|---|
| total fires | ? | 2115000 | 2019000 | 2041500 | 1964500 | 1952500 | 2018500 |
| domestic fires | 466200 | ? | ? | ? | ? | ? | 466200 |
| total injuries | ? | 28250 | 28600 | 29375 | 28700 | 30475 | 29080 |
| domestic injuries | 20810 | ? | ? | ? | ? | ? | 20810 |
| total deaths | ? | 5410 | 5195 | 4465 | 4730 | 4635 | 4887 |
| domestic deaths | 3860 | ? | ? | ? | ? | ? | 3860 |

*Figures sourced from CTIF, 1996 and Hall, 1996c*

**Table E-12: Figures for Canada used to calculate percentages domestic fires, injuries and fatalities.**

| Canada | 1991 | 1992 | 1993 | Average |
|---|---|---|---|---|
| total fires | 68150 | 65999 | 65877 | 66675 |
| domestic fires | 26906 | 25840 | 23509 | 25418 |
| total injuries | 3476 | 3874 | 3463 | 3604 |
| domestic injuries | 2255 | 2524 | 2093 | 2291 |
| total deaths | 406 | 401 | 417 | 408 |
| domestic deaths | 281 | 278 | 289 | 283 |

*Figures sourced from ACFM/FC, 1993; ACFM/FC, 1992; and ACFM/FC, 1991*

**Table E-13: 1991 Census of population and dwellings as supplied for the author by Statistics New Zealand.**

## 1991 Census of Population and Dwellings
## Age by Sex for Population Usually Residing in Permanent Private Dwellings

| Age Group (Years) | Male | % (1) | Female | % (2) | Total | % (3) |
|---|---|---|---|---|---|---|
| 0 - 4 | 136,911 | 96.8 | 131,421 | 96.9 | 268,332 | 96.8 |
| 5 - 9 | 126,492 | 98.3 | 120,411 | 98.3 | 246,900 | 98.3 |
| 10 - 14 | 127,587 | 97.9 | 122,796 | 98.2 | 250,383 | 98.1 |
| 15 - 19 | 136,563 | 94.2 | 132,300 | 94.5 | 268,863 | 94.3 |
| 20 - 24 | 126,891 | 93.3 | 128,907 | 95.4 | 255,798 | 94.4 |
| 25 - 29 | 125,679 | 94.4 | 134,169 | 96.3 | 259,848 | 95.4 |
| 30 - 34 | 127,596 | 95.4 | 134,727 | 97.2 | 262,320 | 96.3 |
| 35 - 39 | 117,705 | 96.5 | 122,442 | 98.0 | 240,150 | 97.3 |
| 40 - 44 | 115,149 | 97.4 | 116,985 | 98.3 | 232,134 | 97.8 |
| 45 - 49 | 91,275 | 97.4 | 91,272 | 98.0 | 182,547 | 97.7 |
| 50 - 54 | 77,466 | 97.0 | 77,793 | 97.4 | 155,259 | 97.2 |
| 55 - 59 | 66,840 | 96.1 | 66,060 | 96.3 | 132,903 | 96.2 |
| 60 - 64 | 66,825 | 94.6 | 66,771 | 95.0 | 133,596 | 94.8 |
| 65 - 69 | 56,370 | 93.6 | 62,793 | 94.4 | 119,166 | 94.0 |
| 70 - 74 | 40,503 | 93.3 | 52,110 | 93.3 | 92,616 | 93.3 |
| 75 - 79 | 28,440 | 91.8 | 40,551 | 89.9 | 68,991 | 90.7 |
| 80 - 84 | 14,787 | 87.5 | 24,282 | 81.3 | 39,069 | 83.6 |
| 85 - 89 | 5,391 | 78.6 | 9,918 | 65.3 | 15,309 | 69.4 |
| 90 + | 1,284 | 61.1 | 2,925 | 42.9 | 4,209 | 47.2 |
| **Total** | **1,589,760** | **95.6** | **1,638,642** | **95.8** | **3,228,399** | **95.7** |

(1) Males living in Permanent Private Dwellings as a percentage of all Males
(2) Females living in Permanent Private Dwellings as a percentage of all Females
(3) Population living in Permanent Private Dwellings as a percentage of Total Population

All cells in this table have been randomly rounded to base 3
SOURCE: Statistics New Zealand, 1991 Census of Population and Dwellings

# Appendix F

## Tables and Figures form Ogilvy and Mather

**Note tables and figures are copied or taken from Davies, 1994a.**

**Figure 8: Pairwise plots of the social variables**

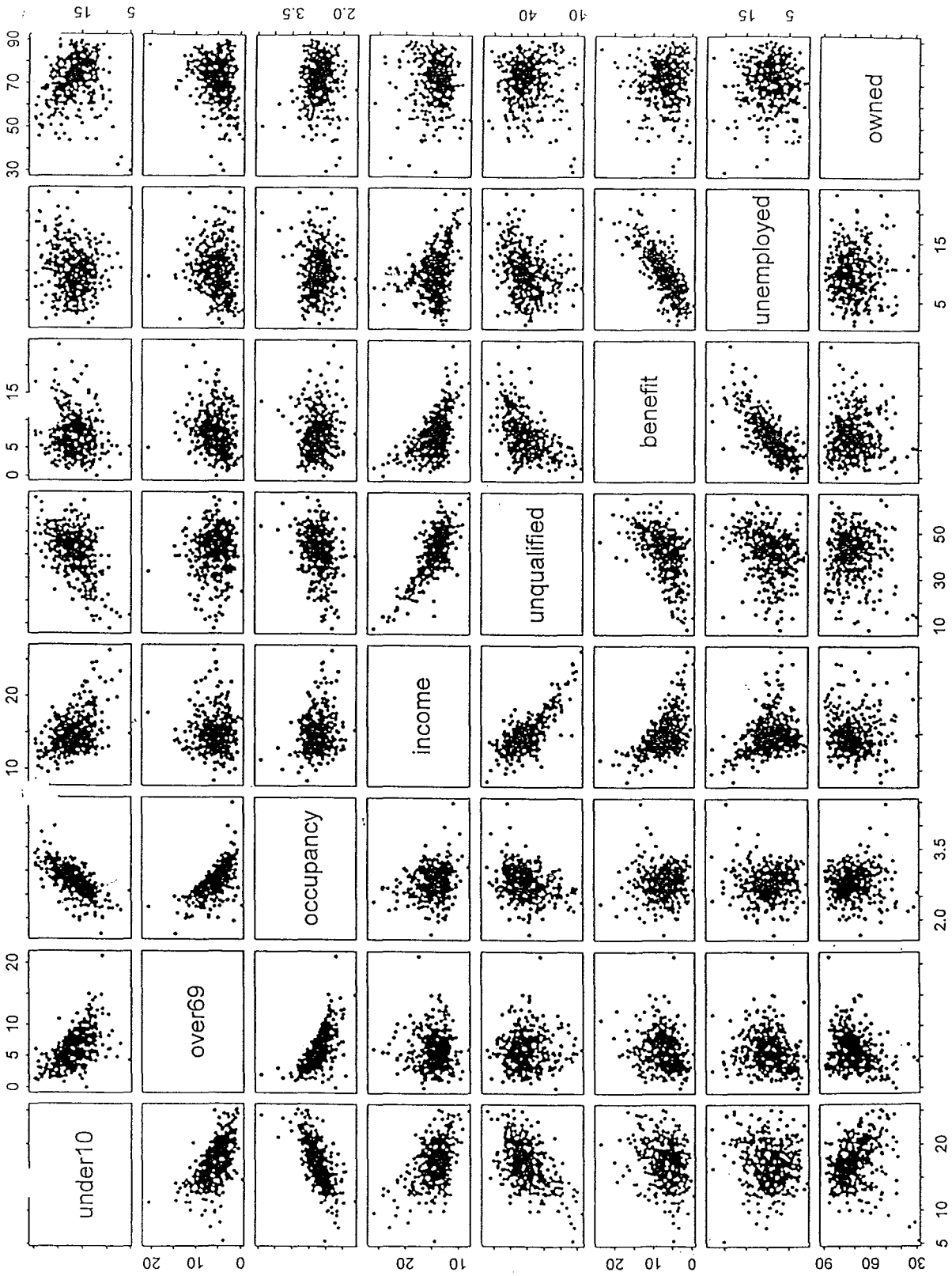

**Figure 12: GAM transform of temperature**

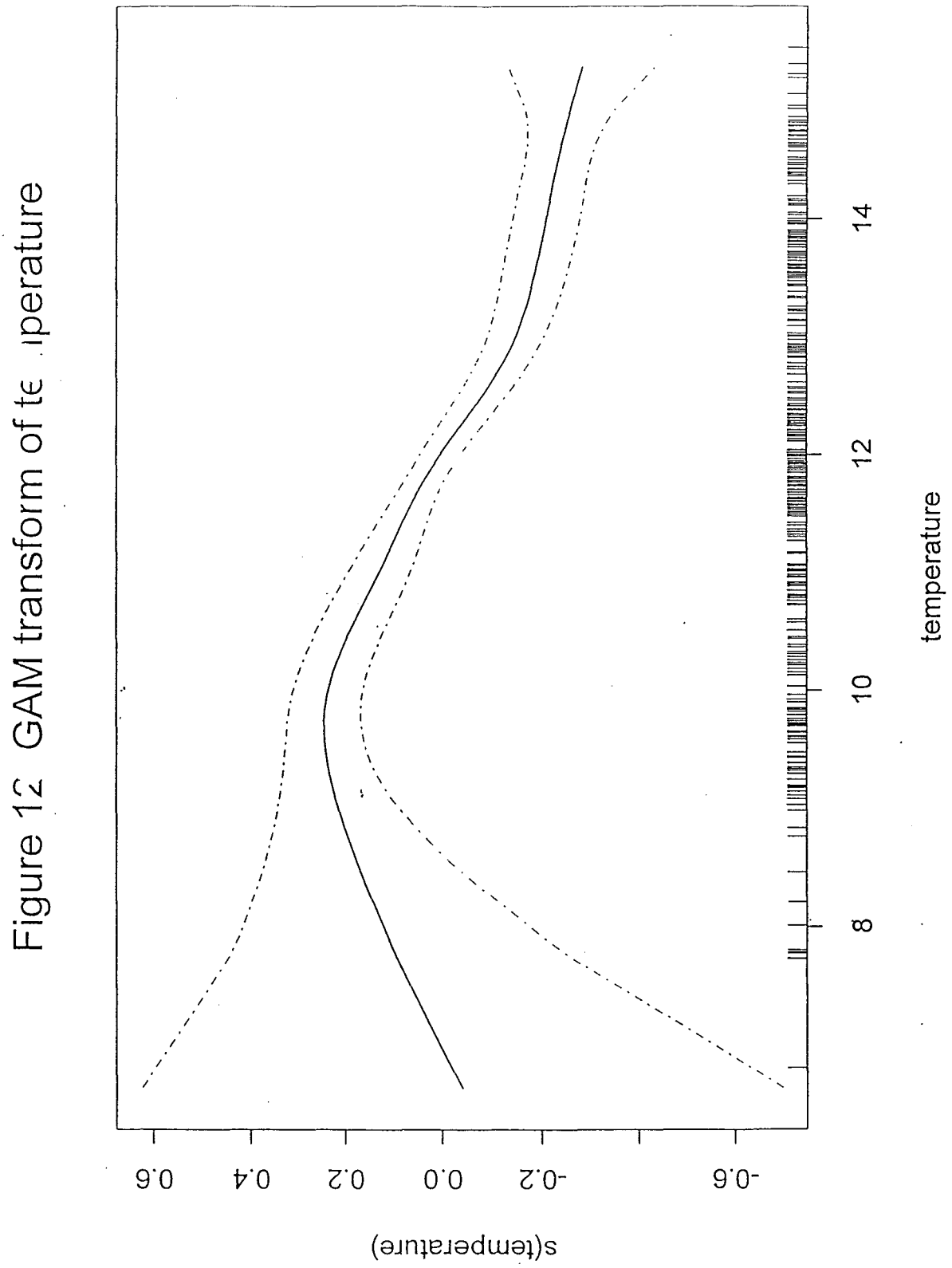

Figure 2[illegible]: percent reduction i[illegible] fires

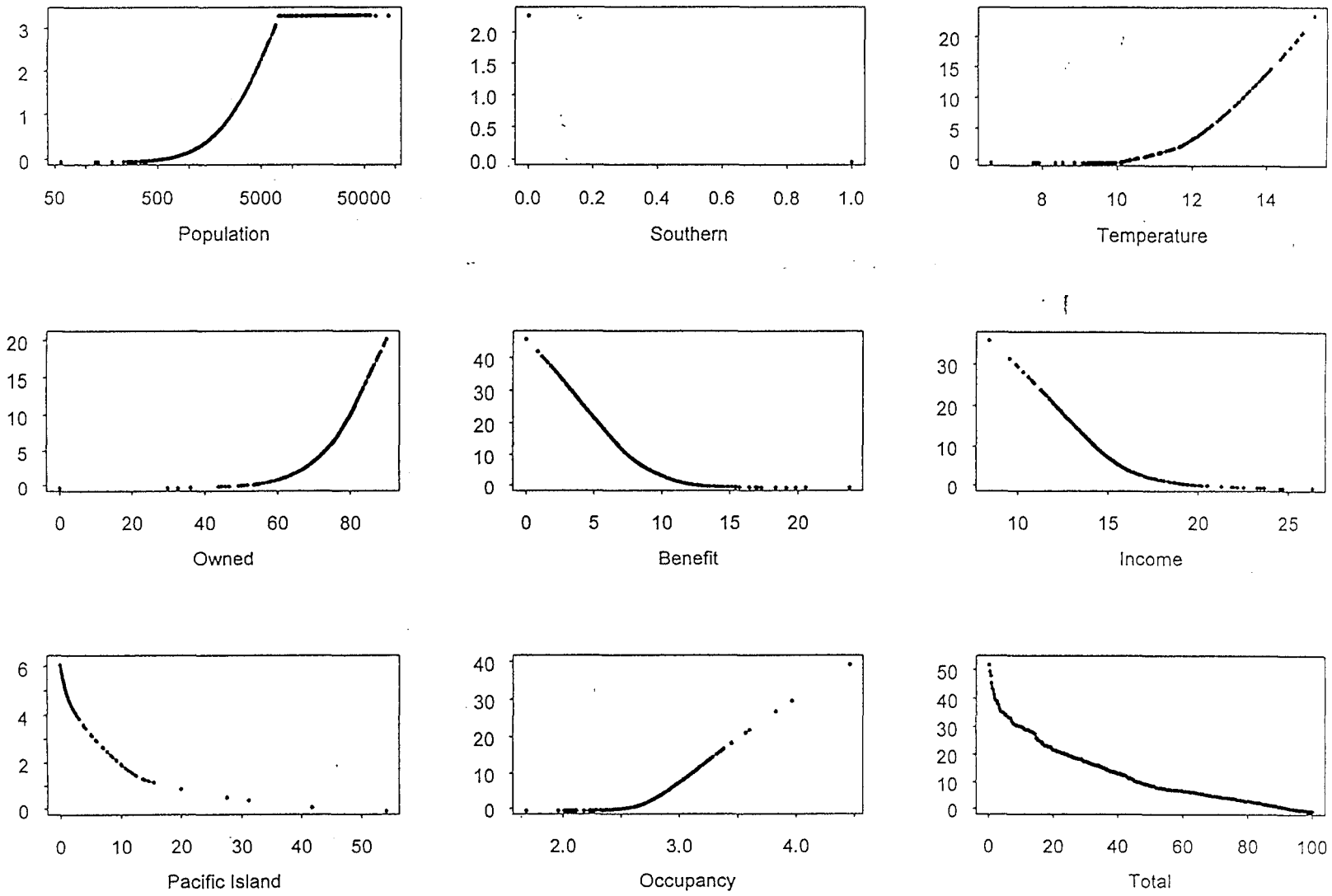


Figure 20: Percent reduction in fires

Table 1: Pair-wise correlations

| | Under 10 | Over 69 | Occupancy | Income | Unqualified | Benefit | Unemployed | Owned |
|---|---|---|---|---|---|---|---|---|
| Under 10 | 1.00 | **-0.61** | **0.72** | -0.38 | 0.47 | 0.26 | 0.13 | -0.39 |
| Over 69 | **-0.61** | 1.00 | **-0.73** | 0.00 | -0.06 | 0.29 | 0.27 | 0.33 |
| Occupancy | **0.72** | **-0.73** | 1.00 | -0.07 | 0.27 | -0.14 | -0.15 | -0.12 |
| Income | -0.38 | 0.00 | -0.07 | 1.00 | **-0.75** | -0.47 | -0.30 | 0.04 |
| Unqualified | 0.47 | -0.06 | 0.27 | **-0.75** | 1.00 | **0.54** | 0.31 | -0.03 |
| Benefit | 0.26 | 0.29 | -0.14 | -0.47 | **0.54** | 1.00 | **0.81** | -0.07 |
| Unemployed | 0.13 | 0.27 | -0.15 | -0.30 | 0.31 | **0.81** | 1.00 | 0.01 |
| Owned | -0.39 | 0.33 | -0.12 | 0.04 | -0.03 | -0.07 | 0.01 | 1.00 |

**Table 4: The step-wise fit**

| | Deviance | Resid. Df | Resid. Dev | F Value | Pr(F) |
|---|---|---|---|---|---|
| Null | | 427 | 1438 | | |
| logpop* | 17 | 426 | 1421 | 9.9 | 0.00179 |
| southern | 172 | 425 | 1249 | 100.4 | 0.00000 |
| temperature* | 41 | 424 | 1208 | 23.77 | 0.00000 |
| owned | 255 | 423 | 954 | 148.8 | 0.00000 |
| benefit | 99 | 422 | 855 | 57.8 | 0.00000 |
| income | 74 | 421 | 781 | 43.0 | 0.00000 |
| Pacific Island | 11 | 420 | 770 | 6.6 | 0.01051 |
| occupancy | 31 | 419 | 739 | 18.0 | 0.00003 |

Table 6: Outlying points

| FRA | Station | Fires | Fitted | Residual | Probability |
|---|---|---|---|---|---|
| 1A01_24 | St Heliers | 65 | 87.45 | −2.40 | 0.0073731 |
| 1A01_65 | Henderson | 107 | 81.92 | 2.77 | 0.0044953 |
| 1A08_48 | Mangatangi | 8 | 1.71 | 4.81 | 0.0004060 |
| 2A01_41 | Hamilton | 126 | 170.63 | −3.42 | 0.0002084 |
| 2C02_92 | Whakatane | 10 | 30.60 | −3.72 | 0.0000148 |
| 2D03_89 | Murupara | 1 | 9.91 | −2.83 | 0.0005417 |
| 2E02_23 | Turangi | 28 | 14.62 | 3.50 | 0.0011988 |
| 3A10_36 | Foxton | 3 | 11.04 | −2.42 | 0.0047531 |
| 3D04_59 | Porangahau | 8 | 1.26 | 6.00 | 0.0000522 |
| 3E09_94 | Wairoa | 27 | 15.25 | 3.01 | 0.0040830 |
| 4A01_33 | Tawa | 10 | 21.00 | −2.40 | 0.0062541 |
| 4A01_34 | Titahi Bay | 11 | 29.10 | −3.35 | 0.0001144 |
| 4A05_38 | Waikanae | 3 | 12.69 | −2.72 | 0.0013378 |
| 5A01_26 | Harewood | 60 | 81.75 | −2.41 | 0.0072226 |
| 5A21_75 | Kaikoura | 16 | 6.73 | 3.57 | 0.0016384 |
| 5B09_37 | Kaiteriteri | 0 | 7.39 | −2.72 | 0.0006150 |
| 6A11_52 | Kaitangata | 12 | 3.25 | 4.85 | 0.0001495 |
| 6A21_77 | Frankton | 5 | 13.21 | −2.26 | 0.0093636 |

**Table 8: Analysis of variance for fit with factor analysis components**

| | Deviance | Resid. Df | Resid. Dev | F Value | Pr(F) |
|---|---|---|---|---|---|
| Null | | 427 | 1438 | | 0.0022 |
| logpop* | 17 | 426 | 1421 | 9.5 | 0.0000 |
| southern | 172 | 425 | 1249 | 96.1 | 0.0000 |
| temperature* | 41 | 424 | 1208 | 22.7 | 0.0000 |
| Factor 4 | 167 | 423 | 1042 | 93.3 | 0.0000 |
| Factor 3 | 41 | 422 | 1001 | 22.7 | 0.0000 |
| Factor 2 | 194 | 421 | 807 | 108.6 | 0.0000 |
| Pacific Island | 21 | 420 | 786 | 11.8 | 0.0006 |
| Factor 1 | 10 | 419 | 775 | 5.9 | 0.0159 |

Table 12: Fire risk sorted by FRA

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | south. | temp. | owned | benefit | income | Pac.Is. | occup. | | fitted | actual |
| 1A01_20 | City | 6291 | 0.83 | 0.99 | 0.75 | 1.63 | 0.84 | 1.35 | 1.11 | 1.17 | 1.48 | 3.55 | 4.77 |
| 1A01_21 | Remuera | 28521 | 0.81 | 0.99 | 0.75 | 1.04 | 0.70 | 1.59 | 1.00 | 1.07 | 0.74 | 1.78 | 2.14 |
| 1A01_22 | Onehunga | 17037 | 0.81 | 0.99 | 0.78 | 1.15 | 1.03 | 1.17 | 1.21 | 1.11 | 1.15 | 2.75 | 2.41 |
| 1A01_23 | Mt Wellington | 26490 | 0.81 | 0.99 | 0.75 | 1.15 | 1.19 | 1.08 | 1.20 | 1.01 | 1.09 | 2.61 | 3.10 |
| 1A01_24 | St Heliers | 36186 | 0.81 | 0.99 | 0.75 | 1.11 | 0.90 | 1.40 | 1.12 | 1.07 | 1.01 | 2.42 | 1.80 |
| 1A01_25 | Parnell | 7644 | 0.81 | 0.99 | 0.75 | 1.31 | 0.84 | 1.55 | 1.03 | 1.19 | 1.27 | 3.05 | 2.49 |
| 1A01_26 | Ponsonby | 26370 | 0.81 | 0.99 | 0.75 | 1.24 | 0.97 | 1.34 | 1.30 | 1.05 | 1.34 | 3.20 | 3.75 |
| 1A01_27 | Ellerslie | 12489 | 0.81 | 0.99 | 0.75 | 1.14 | 0.96 | 1.26 | 1.14 | 1.10 | 1.05 | 2.50 | 2.64 |
| 1A01_30 | Manukau | 51135 | 0.81 | 0.99 | 0.75 | 0.97 | 1.28 | 1.04 | 1.19 | 0.86 | 0.80 | 1.91 | 2.01 |
| 1A01_31 | Otahuhu | 14904 | 0.81 | 0.99 | 0.75 | 1.30 | 1.44 | 0.93 | 1.53 | 0.92 | 1.49 | 3.56 | 3.35 |
| 1A01_32 | Howick | 56700 | 0.81 | 0.99 | 0.85 | 0.83 | 0.69 | 1.31 | 0.99 | 0.95 | 0.48 | 1.15 | 1.18 |
| 1A01_33 | Otara | 24867 | 0.81 | 0.99 | 0.75 | 1.30 | 1.58 | 0.80 | 2.13 | 0.60 | 1.28 | 3.07 | 3.18 |
| 1A01_34 | Papatoetoe | 32142 | 0.81 | 0.99 | 0.85 | 0.96 | 1.07 | 1.10 | 1.22 | 0.97 | 0.91 | 2.18 | 1.87 |
| 1A01_35 | Mangere | 36060 | 0.81 | 0.99 | 0.75 | 1.15 | 1.40 | 0.89 | 1.79 | 0.70 | 1.07 | 2.57 | 2.19 |
| 1A01_38 | Papakura | 44109 | 0.81 | 0.99 | 0.85 | 0.96 | 1.04 | 1.12 | 1.05 | 0.91 | 0.73 | 1.74 | 1.59 |
| 1A01_43 | Beachlands | 3810 | 0.90 | 0.99 | 0.85 | 0.88 | 0.81 | 1.18 | 0.99 | 1.04 | 0.65 | 1.56 | 2.36 |
| 1A01_44 | Kawakawa Bay | 624 | 1.24 | 0.99 | 0.75 | 0.97 | 0.78 | 1.08 | 0.98 | 1.03 | 0.76 | 1.83 | 0.00 |
| 1A01_46 | Clevedon | 1698 | 1.04 | 0.99 | 0.85 | 1.02 | 0.73 | 1.24 | 0.98 | 0.95 | 0.76 | 1.83 | 1.18 |
| 1A01_60 | Avondale | 51711 | 0.81 | 0.99 | 0.79 | 1.04 | 1.06 | 1.11 | 1.19 | 1.02 | 0.95 | 2.27 | 2.03 |
| 1A01_61 | Balmoral | 32313 | 0.81 | 0.99 | 0.75 | 1.19 | 0.89 | 1.28 | 1.16 | 1.08 | 1.03 | 2.46 | 2.97 |
| 1A01_62 | Mt Roskill | 36513 | 0.81 | 0.99 | 0.78 | 1.09 | 0.99 | 1.15 | 1.17 | 1.02 | 0.93 | 2.22 | 2.25 |
| 1A01_64 | Glen Eden | 27069 | 0.81 | 0.99 | 0.79 | 0.93 | 1.09 | 1.06 | 1.16 | 0.98 | 0.76 | 1.83 | 1.96 |
| 1A01_65 | Henderson | 52545 | 0.81 | 0.99 | 0.79 | 0.89 | 1.02 | 1.08 | 1.15 | 0.92 | 0.65 | 1.56 | 2.04 |
| 1A01_66 | Te Atatu | 8634 | 0.81 | 0.99 | 0.79 | 0.90 | 1.10 | 1.03 | 1.13 | 0.94 | 0.69 | 1.65 | 0.69 |
| 1A01_67 | Waitemata | 18939 | 0.81 | 0.99 | 0.75 | 0.97 | 0.89 | 1.16 | 1.10 | 0.87 | 0.58 | 1.39 | 1.53 |
| 1A01_69 | Titirangi | 15297 | 0.81 | 0.99 | 0.79 | 0.82 | 0.78 | 1.28 | 1.01 | 0.97 | 0.51 | 1.22 | 1.50 |
| 1A01_70 | Laingholm | 2907 | 0.95 | 0.99 | 0.84 | 0.80 | 0.86 | 1.26 | 0.99 | 0.98 | 0.67 | 1.61 | 2.41 |
| 1A01_71 | Waiatarua | 2061 | 1.01 | 0.99 | 0.79 | 0.80 | 0.68 | 1.33 | 0.99 | 0.96 | 0.54 | 1.30 | 2.43 |
| 1A01_76 | Piha | 783 | 1.19 | 0.99 | 0.84 | 0.95 | 1.01 | 1.14 | 1.01 | 1.03 | 1.13 | 2.71 | 1.28 |
| 1A01_80 | Takapuna | 32259 | 0.81 | 0.99 | 0.75 | 0.96 | 0.77 | 1.32 | 1.01 | 1.10 | 0.65 | 1.55 | 1.33 |
| 1A01_81 | Devonport | 15099 | 0.81 | 0.99 | 0.75 | 1.05 | 0.80 | 1.26 | 1.00 | 1.08 | 0.69 | 1.65 | 2.45 |
| 1A01_82 | Birkenhead | 55335 | 0.81 | 0.99 | 0.75 | 0.89 | 0.82 | 1.29 | 1.02 | 0.99 | 0.58 | 1.38 | 1.32 |
| 1A01_83 | East Coast Bays | 43893 | 0.81 | 0.99 | 0.75 | 0.85 | 0.74 | 1.28 | 0.99 | 0.97 | 0.47 | 1.12 | 1.25 |
| 1A01_84 | Greenhithe | 2754 | 0.96 | 0.99 | 0.79 | 0.81 | 0.74 | 1.37 | 0.98 | 0.93 | 0.56 | 1.35 | 1.09 |
| 1A01_86 | Kumeu/Huapai | 7887 | 0.81 | 0.99 | 0.82 | 0.86 | 0.75 | 1.15 | 1.00 | 0.92 | 0.45 | 1.07 | 1.14 |
| 1A06_40 | Oneroa | 2769 | 0.96 | 0.99 | 0.74 | 0.92 | 2.57 | 0.87 | 0.99 | 1.24 | 1.79 | 4.27 | 7.22 |
| 1A06_41 | Onetangi | 2247 | 0.99 | 0.99 | 0.74 | 0.92 | 2.12 | 0.85 | 1.00 | 1.18 | 1.43 | 3.43 | 0.89 |
| 1A08_48 | Mangatangi | 987 | 1.14 | 0.99 | 0.84 | 1.04 | 0.76 | 1.13 | 0.98 | 0.87 | 0.72 | 1.73 | 8.11 |
| 1A08_55 | Pukekohe | 13899 | 0.81 | 0.99 | 0.83 | 0.98 | 0.97 | 1.11 | 1.00 | 0.96 | 0.67 | 1.61 | 1.87 |
| 1A08_56 | Patumahoe | 1764 | 1.03 | 0.99 | 0.83 | 1.00 | 0.66 | 1.18 | 1.01 | 0.92 | 0.62 | 1.48 | 1.13 |
| 1A09_50 | Mercer | 2859 | 0.95 | 0.99 | 0.83 | 1.10 | 0.89 | 1.14 | 1.01 | 0.91 | 0.81 | 1.93 | 1.40 |
| 1A10_51 | Tuakau | 4965 | 0.86 | 0.99 | 0.83 | 0.98 | 1.04 | 1.00 | 0.99 | 0.91 | 0.66 | 1.57 | 0.81 |
| 1A10_53 | Port Waikato | 852 | 1.17 | 0.99 | 0.88 | 1.23 | 1.42 | 0.88 | 0.98 | 1.07 | 1.67 | 4.00 | 4.69 |
| 1A11_57 | Waiuku | 9777 | 0.81 | 0.99 | 0.88 | 0.96 | 0.86 | 1.16 | 0.99 | 0.94 | 0.63 | 1.50 | 2.35 |
| 1A12_89 | Helensville | 5139 | 0.86 | 0.99 | 0.82 | 0.94 | 1.11 | 0.97 | 1.01 | 0.95 | 0.68 | 1.63 | 2.34 |
| 1A13_93 | Warkworth | 8433 | 0.81 | 0.99 | 0.83 | 0.91 | 0.99 | 0.97 | 0.99 | 1.08 | 0.62 | 1.48 | 0.95 |
| 1A14_94 | Leigh | 1326 | 1.09 | 0.99 | 0.71 | 0.87 | 0.98 | 0.94 | 0.99 | 1.11 | 0.68 | 1.63 | 1.51 |
| 1A15_95 | Wellsford | 3849 | 0.90 | 0.99 | 0.71 | 0.99 | 1.07 | 0.90 | 0.98 | 0.94 | 0.57 | 1.36 | 0.52 |
| 1A16_90 | Silverdale | 16941 | 0.81 | 0.99 | 0.82 | 0.90 | 0.89 | 1.08 | 0.99 | 1.07 | 0.60 | 1.43 | 1.12 |
| 1A16_91 | Manly | 6639 | 0.82 | 0.99 | 0.83 | 0.90 | 0.99 | 1.06 | 0.98 | 1.10 | 0.69 | 1.66 | 2.41 |
| 1B01_12 | Whangarei | 35124 | 0.81 | 0.99 | 0.77 | 0.97 | 1.27 | 1.00 | 0.99 | 1.03 | 0.77 | 1.84 | 2.31 |
| 1B01_14 | Whangarei Heads | 1146 | 1.12 | 0.99 | 0.77 | 0.89 | 0.87 | 1.02 | 0.98 | 1.10 | 0.72 | 1.71 | 3.49 |
| 1B01_19 | Kamo | 10932 | 0.81 | 0.99 | 0.77 | 0.91 | 1.13 | 1.00 | 0.98 | 0.96 | 0.59 | 1.42 | 1.65 |
| 1B02_64 | Hikurangi | 2814 | 0.95 | 0.99 | 0.77 | 0.95 | 1.09 | 0.89 | 0.98 | 0.92 | 0.61 | 1.45 | 2.49 |

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | south. | temp. | owned | benefit | income | Pac.Is. | occup. | | fitted | actual |
| 1B03_79 | Ngunguru | 1176 | 1.11 | 0.99 | 0.77 | 0.88 | 1.00 | 1.05 | 0.98 | 1.09 | 0.84 | 2.00 | 0.85 |
| 1B04_17 | Ruakaka | 3348 | 0.92 | 0.99 | 0.77 | 0.99 | 1.09 | 1.00 | 0.99 | 1.00 | 0.75 | 1.79 | 0.90 |
| 1B05_13 | Te Kopuru | 1296 | 1.09 | 0.99 | 0.77 | 0.90 | 1.09 | 0.91 | 1.00 | 0.96 | 0.71 | 1.70 | 3.86 |
| 1B05_62 | Dargaville | 8208 | 0.81 | 0.99 | 0.77 | 0.98 | 1.25 | 0.92 | 0.98 | 0.98 | 0.66 | 1.59 | 0.85 |
| 1B06_63 | Ruawai | 1557 | 1.06 | 0.99 | 0.77 | 1.05 | 0.93 | 0.97 | 0.99 | 0.99 | 0.75 | 1.79 | 2.57 |
| 1B07_15 | Portland | 1131 | 1.12 | 0.99 | 0.77 | 1.01 | 0.87 | 1.02 | 0.98 | 0.89 | 0.67 | 1.61 | 0.88 |
| 1B08_65 | Kaikohe | 5856 | 0.84 | 0.99 | 0.83 | 1.09 | 2.07 | 0.87 | 1.00 | 0.91 | 1.23 | 2.95 | 2.56 |
| 1B09_66 | Kaeo | 1893 | 1.02 | 0.99 | 0.78 | 1.10 | 1.46 | 0.83 | 0.99 | 0.95 | 0.99 | 2.36 | 3.17 |
| 1B10_67 | Kerikeri | 5238 | 0.86 | 0.99 | 0.78 | 0.96 | 0.86 | 1.03 | 0.98 | 1.04 | 0.57 | 1.36 | 0.57 |
| 1B11_68 | Kohukohu | 453 | 1.31 | 0.99 | 0.82 | 1.02 | 1.70 | 0.78 | 0.98 | 1.03 | 1.46 | 3.49 | 6.62 |
| 1B12_69 | Okaihau | 1467 | 1.07 | 0.99 | 0.83 | 1.01 | 1.30 | 0.93 | 1.00 | 0.95 | 1.01 | 2.43 | 4.09 |
| 1B13_70 | Rawene | 1137 | 1.12 | 0.99 | 0.82 | 1.02 | 2.44 | 0.79 | 0.98 | 0.93 | 1.64 | 3.93 | 2.64 |
| 1B14_18 | Ahipara | 1065 | 1.13 | 0.99 | 0.74 | 0.99 | 1.79 | 0.85 | 0.98 | 0.98 | 1.20 | 2.87 | 0.94 |
| 1B14_72 | Kaitaia | 8850 | 0.81 | 0.99 | 0.74 | 1.05 | 1.48 | 0.88 | 0.99 | 0.96 | 0.76 | 1.82 | 2.15 |
| 1B15_73 | Mangonui | 2802 | 0.95 | 0.99 | 0.74 | 0.96 | 1.38 | 0.83 | 0.99 | 1.04 | 0.79 | 1.89 | 1.78 |
| 1B16_74 | Kawakawa | 5385 | 0.85 | 0.99 | 0.83 | 1.04 | 1.63 | 0.83 | 0.99 | 0.84 | 0.81 | 1.94 | 1.30 |
| 1B17_75 | Paihia | 2340 | 0.98 | 0.99 | 0.78 | 1.15 | 0.98 | 1.05 | 0.99 | 1.14 | 1.01 | 2.43 | 2.56 |
| 1B18_76 | Russell | 1320 | 1.09 | 0.99 | 0.78 | 1.05 | 1.07 | 0.95 | 0.98 | 1.17 | 1.04 | 2.49 | 0.76 |
| 1B19_77 | Maungaturoto | 2775 | 0.96 | 0.99 | 0.71 | 1.08 | 1.02 | 0.93 | 0.99 | 0.94 | 0.64 | 1.54 | 0.72 |
| 1B20_78 | Kaiwaka | 783 | 1.19 | 0.99 | 0.71 | 1.04 | 1.18 | 0.87 | 0.98 | 0.90 | 0.79 | 1.90 | 1.28 |
| 1B21_16 | Waipu | 1461 | 1.07 | 0.99 | 0.77 | 1.03 | 0.92 | 0.90 | 0.99 | 1.05 | 0.72 | 1.72 | 0.00 |
| 1B22_71 | Omapere | 1266 | 1.10 | 0.99 | 0.82 | 1.02 | 1.98 | 0.74 | 0.99 | 0.99 | 1.30 | 3.12 | 0.79 |
| 2A01_34 | Whitikahu | 1545 | 1.06 | 0.99 | 0.82 | 1.19 | 0.86 | 1.11 | 0.98 | 0.84 | 0.81 | 1.94 | 2.59 |
| 2A01_41 | Hamilton | 84786 | 0.81 | 0.99 | 0.93 | 1.03 | 0.97 | 1.12 | 1.00 | 1.01 | 0.84 | 2.01 | 1.49 |
| 2A01_42 | Chartwell | 21546 | 0.81 | 0.99 | 0.93 | 1.00 | 1.20 | 1.11 | 1.00 | 0.96 | 0.95 | 2.27 | 1.67 |
| 2A02_33 | Ngaruawahia | 6663 | 0.82 | 0.99 | 0.93 | 1.00 | 1.87 | 0.91 | 0.99 | 0.88 | 1.11 | 2.66 | 2.40 |
| 2A03_44 | Cambridge | 15321 | 0.81 | 0.99 | 0.93 | 0.95 | 0.91 | 1.08 | 0.98 | 0.98 | 0.68 | 1.62 | 1.04 |
| 2A04_32 | Huntly | 10755 | 0.81 | 0.99 | 0.90 | 1.07 | 1.62 | 0.92 | 1.00 | 0.92 | 1.05 | 2.52 | 3.16 |
| 2A05_31 | Te Kauwhata | 2691 | 0.96 | 0.99 | 0.90 | 1.10 | 0.86 | 0.96 | 0.98 | 0.96 | 0.74 | 1.78 | 0.37 |
| 2A06_38 | Matamata | 11004 | 0.81 | 0.99 | 0.85 | 1.04 | 0.92 | 1.05 | 0.98 | 0.98 | 0.66 | 1.58 | 1.64 |
| 2A07_35 | Tahuna | 1974 | 1.01 | 0.99 | 0.81 | 1.13 | 0.80 | 1.05 | 0.98 | 0.86 | 0.66 | 1.58 | 1.01 |
| 2A07_36 | Morrinsville | 8958 | 0.81 | 0.99 | 0.89 | 1.01 | 0.93 | 1.07 | 0.98 | 0.98 | 0.69 | 1.64 | 1.34 |
| 2A08_37 | Te Aroha | 7431 | 0.81 | 0.99 | 0.81 | 1.01 | 0.93 | 1.07 | 0.98 | 0.98 | 0.63 | 1.50 | 1.88 |
| 2A09_39 | Raglan | 3309 | 0.93 | 0.99 | 0.93 | 0.97 | 1.30 | 0.89 | 0.98 | 1.07 | 1.01 | 2.43 | 1.51 |
| 2A10_45 | Te Awamutu | 16386 | 0.81 | 0.99 | 0.94 | 0.98 | 1.03 | 1.02 | 0.98 | 0.99 | 0.75 | 1.79 | 1.22 |
| 2A11_50 | Kawhia | 984 | 1.15 | 0.99 | 0.87 | 1.03 | 1.48 | 0.81 | 0.98 | 1.04 | 1.25 | 2.99 | 4.07 |
| 2A12_47 | Te Kuiti | 5742 | 0.84 | 0.99 | 0.94 | 1.03 | 1.27 | 0.95 | 0.99 | 0.97 | 0.92 | 2.21 | 2.44 |
| 2A13_48 | Benneydale | 780 | 1.19 | 0.99 | 1.25 | 1.17 | 1.15 | 0.85 | 0.98 | 0.95 | 1.59 | 3.80 | 5.13 |
| 2A14_46 | Otorohanga | 6636 | 0.82 | 0.99 | 0.94 | 1.08 | 0.94 | 1.04 | 0.98 | 0.95 | 0.76 | 1.82 | 1.51 |
| 2A15_49 | Pio Pio | 2721 | 0.96 | 0.99 | 0.96 | 1.16 | 0.91 | 0.94 | 0.98 | 0.94 | 0.84 | 2.02 | 1.84 |
| 2B01_71 | Tauranga | 49503 | 0.81 | 0.99 | 0.78 | 0.89 | 1.12 | 1.04 | 0.98 | 1.05 | 0.67 | 1.61 | 1.54 |
| 2B01_72 | Mt Maunganui | 14265 | 0.81 | 0.99 | 0.78 | 1.00 | 1.19 | 1.05 | 0.99 | 1.13 | 0.88 | 2.11 | 1.75 |
| 2B01_73 | Papamoa | 3873 | 0.90 | 0.99 | 0.82 | 0.96 | 1.51 | 0.98 | 0.99 | 1.03 | 1.06 | 2.54 | 1.81 |
| 2B02_54 | Puriri | 759 | 1.20 | 0.99 | 0.84 | 1.06 | 0.97 | 1.02 | 0.98 | 0.94 | 0.97 | 2.32 | 0.00 |
| 2B02_55 | Thames | 6759 | 0.82 | 0.99 | 0.84 | 0.98 | 1.14 | 1.01 | 0.98 | 1.11 | 0.84 | 2.02 | 2.07 |
| 2B03_57 | Coromandel | 1218 | 1.10 | 0.99 | 0.81 | 0.97 | 1.09 | 0.90 | 0.98 | 1.09 | 0.90 | 2.16 | 4.11 |
| 2B04_52 | Ngatea | 3879 | 0.90 | 0.99 | 0.84 | 1.05 | 0.90 | 1.09 | 0.98 | 0.94 | 0.71 | 1.70 | 1.03 |
| 2B04_53 | Turua | 1068 | 1.13 | 0.99 | 0.84 | 1.04 | 0.72 | 1.06 | 0.99 | 0.91 | 0.67 | 1.61 | 0.00 |
| 2B05_63 | Tairua | 855 | 1.17 | 0.99 | 0.84 | 0.94 | 1.17 | 0.88 | 0.98 | 1.27 | 1.19 | 2.85 | 1.17 |
| 2B05_64 | Pauanui | 705 | 1.21 | 0.99 | 0.81 | 1.06 | 1.00 | 1.03 | 1.00 | 1.40 | 1.49 | 3.57 | 0.00 |
| 2B06_56 | Tapu | 1791 | 1.03 | 0.99 | 0.84 | 0.94 | 0.93 | 0.95 | 0.98 | 1.10 | 0.77 | 1.85 | 2.23 |
| 2B07_59 | Whitianga | 2766 | 0.96 | 0.99 | 0.84 | 0.99 | 1.22 | 0.87 | 0.98 | 1.18 | 0.99 | 2.37 | 1.45 |
| 2B07_61 | Cooks Beach | 648 | 1.23 | 0.99 | 0.84 | 1.10 | 0.78 | 0.90 | 0.98 | 1.26 | 0.99 | 2.36 | 0.00 |
| 2B07_62 | Hahei | 567 | 1.26 | 0.99 | 0.84 | 1.04 | 1.05 | 0.95 | 0.98 | 1.24 | 1.34 | 3.21 | 1.76 |

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | | temp. | benefit | | Pac.Is. | | | | | |
| | | | | south. | | owned | | income | | occup. | | fitted | actual |
| 2B08_51 | Paeroa | 6048 | 0.83 | 0.99 | 0.83 | 0.98 | 1.26 | 0.96 | 0.99 | 0.98 | 0.80 | 1.91 | 2.31 |
| 2B09_66 | Waihi | 5673 | 0.84 | 0.99 | 0.86 | 0.95 | 1.56 | 0.89 | 0.99 | 1.03 | 0.96 | 2.30 | 1.59 |
| 2B09_67 | Waihi Beach | 1953 | 1.02 | 0.99 | 0.86 | 1.01 | 1.18 | 0.95 | 0.98 | 1.23 | 1.18 | 2.83 | 2.05 |
| 2B09_68 | Athenree | 456 | 1.31 | 0.99 | 0.86 | 0.87 | 1.22 | 0.89 | 0.98 | 1.12 | 1.16 | 2.77 | 2.19 |
| 2B10_65 | Whangamata | 3132 | 0.94 | 0.99 | 0.84 | 0.96 | 1.63 | 0.88 | 0.99 | 1.25 | 1.33 | 3.18 | 2.87 |
| 2B11_76 | Katikati | 4785 | 0.87 | 0.99 | 0.82 | 0.95 | 1.04 | 0.91 | 0.98 | 1.00 | 0.62 | 1.49 | 2.09 |
| 2B12_77 | Omokoroa | 4221 | 0.89 | 0.99 | 0.78 | 0.89 | 0.84 | 1.01 | 0.98 | 1.02 | 0.52 | 1.25 | 0.71 |
| 2B13_74 | Maketu | 1392 | 1.08 | 0.99 | 0.91 | 1.01 | 1.33 | 0.88 | 1.00 | 1.00 | 1.15 | 2.76 | 0.00 |
| 2B13_78 | Pukehina Beach | 2004 | 1.01 | 0.99 | 0.91 | 1.04 | 1.08 | 0.87 | 0.99 | 1.00 | 0.88 | 2.11 | 2.50 |
| 2B13_79 | Te Puke | 9252 | 0.81 | 0.99 | 0.91 | 0.98 | 1.12 | 0.96 | 0.98 | 0.98 | 0.74 | 1.76 | 1.30 |
| 2C01_91 | Kawerau | 10548 | 0.81 | 0.99 | 0.87 | 0.93 | 1.25 | 1.09 | 1.00 | 0.85 | 0.75 | 1.79 | 2.56 |
| 2C02_92 | Whakatane | 14193 | 0.81 | 0.99 | 0.87 | 0.97 | 1.35 | 1.00 | 0.99 | 0.99 | 0.90 | 2.16 | 0.70 |
| 2C02_97 | Ohope | 2187 | 1.00 | 0.99 | 0.88 | 1.00 | 0.84 | 1.26 | 0.98 | 1.15 | 1.03 | 2.48 | 0.46 |
| 2C03_93 | Edgecumbe | 3762 | 0.91 | 0.99 | 0.87 | 0.99 | 0.91 | 1.07 | 0.98 | 0.89 | 0.66 | 1.58 | 1.86 |
| 2C04_94 | Matata | 1110 | 1.12 | 0.99 | 0.87 | 0.96 | 0.96 | 0.98 | 0.98 | 0.95 | 0.83 | 1.98 | 1.80 |
| 2C05_95 | Taneatua | 3222 | 0.93 | 0.99 | 0.96 | 1.06 | 1.68 | 0.84 | 0.98 | 0.78 | 1.01 | 2.43 | 2.79 |
| 2C06_96 | Opotiki | 6684 | 0.82 | 0.99 | 0.88 | 1.02 | 1.56 | 0.87 | 0.99 | 0.96 | 0.93 | 2.24 | 1.35 |
| 2D01_61 | Kaingaroa | 2160 | 1.00 | 0.99 | 1.11 | 1.24 | 1.03 | 0.95 | 0.98 | 0.83 | 1.09 | 2.61 | 1.39 |
| 2D01_81 | Rotorua | 49239 | 0.81 | 0.99 | 0.99 | 0.99 | 1.29 | 1.04 | 1.01 | 0.98 | 1.05 | 2.51 | 2.80 |
| 2D01_82 | Ngongotaha | 5517 | 0.85 | 0.99 | 0.98 | 0.91 | 1.18 | 0.99 | 0.99 | 0.96 | 0.84 | 2.01 | 1.99 |
| 2D01_83 | Rotoma | 978 | 1.15 | 0.99 | 0.87 | 1.06 | 1.52 | 0.97 | 1.01 | 0.98 | 1.54 | 3.68 | 1.02 |
| 2D01_84 | Mamaku | 621 | 1.24 | 0.99 | 1.01 | 0.88 | 1.62 | 0.83 | 0.99 | 0.89 | 1.30 | 3.12 | 3.22 |
| 2D03_89 | Murupara | 3651 | 0.91 | 0.99 | 1.10 | 1.11 | 1.47 | 0.85 | 0.99 | 0.82 | 1.13 | 2.71 | 0.27 |
| 2D04_86 | Putaruru | 6798 | 0.82 | 0.99 | 0.94 | 1.06 | 1.05 | 1.01 | 0.99 | 0.94 | 0.80 | 1.92 | 2.94 |
| 2D05_88 | Mangakino | 2388 | 0.98 | 0.99 | 1.25 | 1.10 | 1.64 | 0.89 | 0.99 | 1.01 | 1.96 | 4.68 | 5.86 |
| 2D06_85 | Tirau | 1782 | 1.03 | 0.99 | 0.94 | 1.15 | 0.78 | 1.07 | 0.98 | 0.95 | 0.86 | 2.06 | 3.93 |
| 2D07_87 | Tokoroa | 16869 | 0.81 | 0.99 | 1.25 | 0.96 | 1.28 | 1.12 | 1.17 | 0.90 | 1.46 | 3.50 | 3.56 |
| 2E01_21 | Taupo | 17799 | 0.81 | 0.99 | 1.07 | 1.05 | 1.03 | 1.11 | 1.00 | 1.03 | 1.05 | 2.52 | 2.81 |
| 2E01_22 | Kinloch | 852 | 1.17 | 0.99 | 1.07 | 1.10 | 0.71 | 1.03 | 0.98 | 1.00 | 0.99 | 2.37 | 1.17 |
| 2E02_23 | Turangi | 4431 | 0.88 | 0.99 | 1.13 | 1.12 | 1.35 | 0.93 | 0.99 | 1.00 | 1.38 | 3.30 | 6.32 |
| 2E03_25 | Taumarunui | 6423 | 0.83 | 0.99 | 0.97 | 1.10 | 1.37 | 0.94 | 0.99 | 0.98 | 1.09 | 2.61 | 2.18 |
| 2E04_24 | Ohura | 1449 | 1.07 | 0.99 | 0.97 | 1.14 | 0.91 | 0.94 | 0.98 | 0.96 | 0.96 | 2.29 | 4.14 |
| 2E05_28 | National Park | 612 | 1.24 | 0.99 | 1.25 | 1.30 | 0.82 | 0.96 | 0.99 | 0.97 | 1.53 | 3.67 | 1.63 |
| 2E05_29 | Whakapapa | 57 | 1.88 | 0.99 | 1.25 | 2.45 | 0.55 | 1.66 | 1.05 | 1.23 | 6.86 | 16.43 | 0.00 |
| 2E06_27 | Owhango | 369 | 1.36 | 0.99 | 0.97 | 1.13 | 0.85 | 0.89 | 0.99 | 1.05 | 1.17 | 2.79 | 10.84 |
| 2E07_26 | Manunui | 1185 | 1.11 | 0.99 | 0.97 | 0.99 | 1.19 | 0.92 | 0.98 | 0.91 | 1.04 | 2.48 | 2.53 |
| 3A01_21 | Palmerston North | 64047 | 0.81 | 0.99 | 0.98 | 1.05 | 0.97 | 1.09 | 1.00 | 1.01 | 0.89 | 2.14 | 2.15 |
| 3A01_22 | Ashurst | 2619 | 0.97 | 0.99 | 0.98 | 0.79 | 0.86 | 1.05 | 0.99 | 0.93 | 0.63 | 1.50 | 1.15 |
| 3A01_23 | Bunnythorpe | 1620 | 1.05 | 0.99 | 0.98 | 0.93 | 0.84 | 1.09 | 0.98 | 0.93 | 0.81 | 1.93 | 1.23 |
| 3A02_25 | Rongotea | 2691 | 0.96 | 0.99 | 0.98 | 0.94 | 0.76 | 1.05 | 0.98 | 0.91 | 0.63 | 1.50 | 2.23 |
| 3A02_26 | Tangimoana | 384 | 1.35 | 0.99 | 0.98 | 0.85 | 1.13 | 0.84 | 0.99 | 1.09 | 1.15 | 2.76 | 0.00 |
| 3A03_27 | Tokomaru | 1935 | 1.02 | 0.99 | 0.98 | 1.10 | 0.81 | 1.14 | 0.99 | 0.87 | 0.88 | 2.11 | 1.03 |
| 3A04_28 | Feilding | 13425 | 0.81 | 0.99 | 0.98 | 0.92 | 1.04 | 1.02 | 0.98 | 1.01 | 0.77 | 1.84 | 2.23 |
| 3A04_29 | Cheltenham | 1119 | 1.12 | 0.99 | 0.98 | 1.04 | 0.71 | 1.03 | 0.98 | 0.90 | 0.74 | 1.77 | 1.79 |
| 3A05_31 | Apiti | 972 | 1.15 | 0.99 | 1.09 | 0.98 | 0.73 | 1.04 | 0.98 | 0.93 | 0.85 | 2.04 | 0.00 |
| 3A07_32 | Halcombe | 1305 | 1.09 | 0.99 | 0.98 | 0.98 | 0.84 | 1.01 | 0.98 | 0.92 | 0.80 | 1.92 | 0.77 |
| 3A08_33 | Kimbolton | 297 | 1.41 | 0.99 | 1.04 | 1.01 | 0.82 | 1.00 | 0.98 | 0.96 | 1.14 | 2.73 | 0.00 |
| 3A09_34 | Levin | 18456 | 0.81 | 0.99 | 0.98 | 0.90 | 1.23 | 0.97 | 1.00 | 1.05 | 0.89 | 2.12 | 1.95 |
| 3A09_35 | Waiterere | 660 | 1.23 | 0.99 | 0.98 | 0.91 | 1.27 | 0.93 | 1.00 | 1.13 | 1.44 | 3.45 | 1.52 |
| 3A10_36 | Foxton | 4152 | 0.89 | 0.99 | 0.98 | 1.02 | 1.43 | 0.91 | 0.99 | 0.98 | 1.11 | 2.66 | 0.72 |
| 3A11_37 | Foxton Beach | 1872 | 1.02 | 0.99 | 0.98 | 0.87 | 1.76 | 0.85 | 0.99 | 1.17 | 1.51 | 3.60 | 4.81 |
| 3A11_38 | Himatangi Beach | 681 | 1.22 | 0.99 | 0.98 | 0.91 | 1.83 | 0.88 | 0.98 | 1.08 | 1.88 | 4.50 | 2.94 |
| 3A12_39 | Shannon | 2160 | 1.00 | 0.99 | 0.98 | 1.01 | 1.66 | 0.88 | 1.01 | 0.93 | 1.34 | 3.21 | 4.63 |
| 3A13_41 | Otaki | 7569 | 0.81 | 0.99 | 0.98 | 0.93 | 1.19 | 0.97 | 0.99 | 1.08 | 0.90 | 2.16 | 2.11 |

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | | temp. | benefit | | Pac.Is. | | | | | |
| | | | | south. | | owned | | income | | occup. | | fitted | actual |
| 3A14_42 | Rangiwahia | 288 | 1.42 | 0.99 | 1.15 | 1.16 | 0.75 | 0.88 | 0.98 | 0.88 | 1.06 | 2.53 | 3.47 |
| 3A15_43 | Woodville | 2577 | 0.97 | 0.99 | 0.98 | 0.98 | 1.12 | 0.97 | 0.98 | 0.98 | 0.97 | 2.31 | 2.33 |
| 3A16_44 | Pongaroa | 690 | 1.22 | 0.99 | 0.96 | 1.19 | 0.85 | 0.93 | 0.98 | 0.95 | 1.03 | 2.46 | 0.00 |
| 3A17_45 | Pahiatua | 4581 | 0.88 | 0.99 | 1.02 | 0.98 | 0.96 | 1.03 | 0.99 | 0.98 | 0.83 | 1.98 | 1.96 |
| 3B01_71 | Wanganui | 41040 | 0.81 | 0.99 | 0.89 | 0.96 | 1.49 | 0.97 | 0.99 | 1.05 | 1.04 | 2.49 | 2.78 |
| 3B02_72 | Waverley | 1407 | 1.08 | 0.99 | 0.89 | 1.04 | 1.28 | 0.91 | 0.98 | 1.05 | 1.20 | 2.88 | 3.55 |
| 3B03_73 | Ratana | 2010 | 1.01 | 0.99 | 0.89 | 1.10 | 1.07 | 0.87 | 0.99 | 0.92 | 0.84 | 2.01 | 1.49 |
| 3B04_74 | Waitotara | 729 | 1.21 | 0.99 | 0.89 | 1.13 | 0.85 | 0.95 | 0.99 | 1.04 | 1.01 | 2.42 | 6.86 |
| 3B05_75 | Ohakune | 2007 | 1.01 | 0.99 | 1.25 | 1.37 | 1.13 | 1.02 | 0.99 | 0.97 | 1.90 | 4.56 | 3.49 |
| 3B06_76 | Raetihi | 1545 | 1.06 | 0.99 | 1.05 | 1.05 | 1.62 | 0.85 | 0.99 | 0.93 | 1.45 | 3.48 | 7.12 |
| 3B07_77 | Taihape | 3657 | 0.91 | 0.99 | 1.15 | 1.16 | 1.02 | 0.96 | 0.98 | 0.98 | 1.13 | 2.69 | 1.37 |
| 3B08_78 | Mangaweka | 306 | 1.40 | 0.99 | 1.15 | 1.03 | 1.12 | 0.86 | 0.98 | 0.99 | 1.53 | 3.66 | 3.27 |
| 3B09_79 | Hunterville | 1044 | 1.13 | 0.99 | 1.15 | 1.12 | 1.01 | 0.95 | 0.98 | 1.05 | 1.45 | 3.46 | 1.92 |
| 3B10_81 | Marton | 7509 | 0.81 | 0.99 | 0.89 | 0.99 | 1.11 | 0.98 | 0.99 | 1.01 | 0.77 | 1.85 | 2.00 |
| 3B11_82 | Bulls | 2997 | 0.94 | 0.99 | 0.89 | 1.14 | 0.85 | 1.06 | 0.99 | 1.03 | 0.87 | 2.09 | 2.34 |
| 3C01_61 | New Plymouth | 45948 | 0.81 | 0.99 | 0.93 | 0.94 | 1.08 | 1.07 | 0.98 | 1.04 | 0.82 | 1.97 | 1.78 |
| 3C01_63 | Oakura | 1728 | 1.04 | 0.99 | 0.93 | 0.96 | 0.80 | 1.22 | 0.98 | 1.01 | 0.88 | 2.11 | 2.31 |
| 3C02_64 | Inglewood | 6624 | 0.82 | 0.99 | 1.11 | 0.96 | 0.86 | 1.00 | 0.98 | 0.93 | 0.68 | 1.64 | 1.66 |
| 3C03_65 | Okato | 1686 | 1.04 | 0.99 | 0.93 | 1.07 | 0.89 | 1.07 | 0.98 | 0.94 | 0.90 | 2.15 | 2.97 |
| 3C04_66 | Urenui | 1203 | 1.11 | 0.99 | 0.91 | 0.98 | 1.04 | 0.98 | 0.98 | 0.98 | 0.95 | 2.29 | 1.66 |
| 3C05_47 | Waitara | 7557 | 0.81 | 0.99 | 0.93 | 0.94 | 1.68 | 0.90 | 0.98 | 0.99 | 1.03 | 2.46 | 2.78 |
| 3C06_48 | Stratford | 8679 | 0.81 | 0.99 | 1.11 | 0.96 | 1.12 | 0.97 | 0.98 | 0.99 | 0.89 | 2.14 | 2.19 |
| 3C06_49 | Toko | 444 | 1.32 | 0.99 | 1.11 | 1.16 | 0.98 | 0.92 | 0.99 | 0.90 | 1.33 | 3.19 | 4.50 |
| 3C07_51 | Eltham | 3759 | 0.91 | 0.99 | 1.05 | 0.98 | 1.00 | 1.00 | 0.98 | 0.96 | 0.87 | 2.09 | 2.66 |
| 3C08_52 | Kaponga | 1926 | 1.02 | 0.99 | 1.05 | 1.19 | 0.79 | 1.17 | 0.98 | 0.90 | 1.03 | 2.47 | 1.56 |
| 3C09_53 | Opunake | 2931 | 0.95 | 0.99 | 1.11 | 1.05 | 1.18 | 0.99 | 0.98 | 0.94 | 1.18 | 2.82 | 2.05 |
| 3C09_54 | Rahotu | 1533 | 1.06 | 0.99 | 0.92 | 1.23 | 0.94 | 1.03 | 0.98 | 0.89 | 1.02 | 2.44 | 1.30 |
| 3C10_55 | Hawera | 12066 | 0.81 | 0.99 | 1.05 | 0.95 | 1.08 | 1.04 | 0.98 | 1.00 | 0.88 | 2.11 | 1.57 |
| 3C10_56 | Okaiawa | 672 | 1.22 | 0.99 | 1.05 | 1.22 | 1.08 | 1.12 | 0.98 | 0.94 | 1.73 | 4.14 | 2.98 |
| 3C11_57 | Manaia | 2115 | 1.00 | 0.99 | 1.05 | 1.10 | 1.20 | 1.01 | 0.98 | 0.93 | 1.26 | 3.01 | 1.89 |
| 3C12_58 | Patea | 2163 | 1.00 | 0.99 | 1.02 | 1.10 | 1.75 | 0.84 | 0.98 | 1.03 | 1.65 | 3.95 | 1.85 |
| 3D01_51 | Napier | 38181 | 0.81 | 0.99 | 0.90 | 1.00 | 1.38 | 1.00 | 0.99 | 1.05 | 1.03 | 2.47 | 2.57 |
| 3D01_52 | Haumoana | 3858 | 0.90 | 0.99 | 0.97 | 0.89 | 1.15 | 0.99 | 0.98 | 0.99 | 0.86 | 2.05 | 1.56 |
| 3D01_53 | Havelock North | 9990 | 0.81 | 0.99 | 0.97 | 0.85 | 0.81 | 1.20 | 0.99 | 1.04 | 0.66 | 1.59 | 1.90 |
| 3D01_54 | Bay View | 2943 | 0.95 | 0.99 | 0.90 | 0.97 | 0.90 | 1.03 | 0.98 | 0.98 | 0.74 | 1.77 | 1.70 |
| 3D01_55 | Taradale | 10839 | 0.81 | 0.99 | 0.90 | 0.84 | 0.83 | 1.09 | 0.98 | 1.04 | 0.56 | 1.33 | 0.92 |
| 3D01_56 | Hastings | 42444 | 0.81 | 0.99 | 0.97 | 1.00 | 1.52 | 0.94 | 1.02 | 0.99 | 1.12 | 2.68 | 2.73 |
| 3D03_58 | Waipukurau | 5160 | 0.86 | 0.99 | 1.01 | 1.00 | 1.02 | 1.00 | 0.99 | 1.02 | 0.88 | 2.11 | 2.33 |
| 3D04_59 | Porangahau | 603 | 1.25 | 0.99 | 0.96 | 1.14 | 0.80 | 0.86 | 1.00 | 0.94 | 0.87 | 2.09 | 13.27 |
| 3D05_61 | Takapau | 1188 | 1.11 | 0.99 | 1.07 | 1.07 | 1.05 | 0.93 | 0.98 | 0.90 | 1.10 | 2.63 | 0.00 |
| 3D05_62 | Ashley Clinton | 255 | 1.45 | 0.99 | 1.08 | 1.25 | 0.78 | 0.93 | 0.98 | 0.93 | 1.27 | 3.05 | 0.00 |
| 3D06_63 | Waipawa | 2301 | 0.99 | 0.99 | 1.01 | 0.98 | 1.02 | 0.98 | 0.98 | 1.03 | 0.98 | 2.34 | 1.30 |
| 3D06_64 | Onga Onga | 450 | 1.31 | 0.99 | 1.07 | 1.05 | 0.85 | 0.94 | 0.99 | 0.92 | 1.07 | 2.56 | 2.22 |
| 3D06_65 | Otane | 1029 | 1.14 | 0.99 | 1.01 | 0.98 | 1.05 | 0.86 | 0.99 | 0.85 | 0.84 | 2.02 | 0.97 |
| 3D06_66 | Tikokino | 558 | 1.26 | 0.99 | 1.01 | 1.24 | 0.75 | 0.93 | 0.98 | 0.99 | 1.07 | 2.56 | 0.00 |
| 3D07_67 | Dannevirke | 8073 | 0.81 | 0.99 | 1.04 | 0.97 | 1.05 | 1.00 | 0.98 | 1.01 | 0.83 | 2.00 | 2.35 |
| 3D08_68 | Norsewood | 696 | 1.22 | 0.99 | 1.08 | 1.03 | 0.87 | 0.95 | 0.98 | 0.94 | 1.03 | 2.46 | 1.44 |
| 3D09_69 | Ormondville | 363 | 1.36 | 0.99 | 1.08 | 0.88 | 1.16 | 0.89 | 0.98 | 0.99 | 1.30 | 3.10 | 0.00 |
| 3E01_81 | Gisborne | 30879 | 0.81 | 0.99 | 0.85 | 1.03 | 1.51 | 0.99 | 0.99 | 0.99 | 1.03 | 2.47 | 3.11 |
| 3E01_82 | Manutuke | 1854 | 1.03 | 0.99 | 0.85 | 1.16 | 0.88 | 1.00 | 0.98 | 0.90 | 0.78 | 1.88 | 2.70 |
| 3E01_83 | Patutahi | 1284 | 1.09 | 0.99 | 0.85 | 1.07 | 0.84 | 0.93 | 0.98 | 0.88 | 0.67 | 1.61 | 1.56 |
| 3E02_84 | Matawai | 591 | 1.25 | 0.99 | 1.14 | 1.32 | 0.84 | 1.00 | 0.98 | 0.93 | 1.43 | 3.43 | 3.38 |
| 3E03_85 | Te Karaka | 1488 | 1.07 | 0.99 | 0.85 | 1.23 | 1.00 | 0.86 | 0.98 | 0.89 | 0.82 | 1.97 | 2.69 |
| 3E03_86 | Whatatutu | 390 | 1.35 | 0.99 | 0.85 | 1.31 | 1.29 | 0.74 | 0.99 | 0.73 | 1.03 | 2.48 | 0.00 |

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | south. | temp. | owned | benefit | income | Pac.Is. | occup. | | fitted | actual |
| 3E04_87 | Tolaga Bay | 1389 | 1.08 | 0.99 | 0.85 | 1.21 | 1.49 | 0.82 | 0.99 | 0.90 | 1.20 | 2.87 | 4.32 |
| 3E05_88 | Ruatoria | 1332 | 1.09 | 0.99 | 0.84 | 1.38 | 1.75 | 0.76 | 0.98 | 0.86 | 1.40 | 3.35 | 6.76 |
| 3E06_89 | Te Araroa | 1287 | 1.09 | 0.99 | 0.83 | 1.25 | 1.53 | 0.72 | 0.98 | 0.84 | 1.03 | 2.47 | 3.11 |
| 3E07_91 | Tikitiki | 540 | 1.27 | 0.99 | 0.84 | 1.25 | 2.07 | 0.68 | 0.98 | 0.91 | 1.66 | 3.98 | 0.00 |
| 3E08_92 | Tokomaru Bay | 750 | 1.20 | 0.99 | 0.84 | 1.30 | 1.65 | 0.81 | 0.98 | 0.91 | 1.56 | 3.74 | 2.67 |
| 3E08_93 | Te Puia Springs | 471 | 1.30 | 0.99 | 0.84 | 1.41 | 1.39 | 0.96 | 1.00 | 0.93 | 1.90 | 4.55 | 8.49 |
| 3E09_94 | Wairoa | 7929 | 0.81 | 0.99 | 0.87 | 1.13 | 1.22 | 0.92 | 0.98 | 0.93 | 0.80 | 1.92 | 3.41 |
| 3E10_95 | Nuhaka | 1233 | 1.10 | 0.99 | 0.89 | 1.11 | 1.41 | 0.85 | 0.98 | 0.95 | 1.21 | 2.89 | 0.00 |
| 4A01_21 | Wellington City | 8928 | 0.81 | 0.99 | 1.00 | 1.56 | 0.75 | 1.68 | 1.04 | 1.20 | 1.96 | 4.70 | 5.38 |
| 4A01_22 | Newtown | 20214 | 0.81 | 0.99 | 1.00 | 1.25 | 0.90 | 1.30 | 1.13 | 1.08 | 1.43 | 3.43 | 3.51 |
| 4A01_23 | Thorndon | 7662 | 0.81 | 0.99 | 1.00 | 1.14 | 0.62 | 2.00 | 0.99 | 1.14 | 1.28 | 3.07 | 2.87 |
| 4A01_24 | Kilbirnie | 27657 | 0.81 | 0.99 | 1.00 | 1.09 | 0.80 | 1.34 | 1.06 | 1.07 | 1.05 | 2.52 | 2.31 |
| 4A01_25 | Brooklyn | 12612 | 0.81 | 0.99 | 1.00 | 1.19 | 0.75 | 1.53 | 1.04 | 1.13 | 1.27 | 3.05 | 4.12 |
| 4A01_26 | Northland | 20904 | 0.81 | 0.99 | 1.00 | 1.02 | 0.67 | 1.70 | 1.01 | 1.04 | 0.97 | 2.33 | 2.39 |
| 4A01_27 | Khandallah | 12474 | 0.81 | 0.99 | 1.00 | 0.91 | 0.65 | 1.79 | 1.00 | 1.04 | 0.88 | 2.10 | 2.16 |
| 4A01_28 | Johnsonville | 10164 | 0.81 | 0.99 | 1.00 | 0.93 | 0.71 | 1.52 | 1.00 | 1.03 | 0.83 | 1.98 | 1.97 |
| 4A01_29 | Newlands | 9786 | 0.81 | 0.99 | 1.00 | 0.89 | 0.71 | 1.53 | 1.02 | 0.98 | 0.78 | 1.86 | 1.23 |
| 4A01_31 | Porirua | 29343 | 0.81 | 0.99 | 0.91 | 1.13 | 1.16 | 1.10 | 1.46 | 0.79 | 1.21 | 2.89 | 3.20 |
| 4A01_33 | Tawa | 13206 | 0.81 | 0.99 | 0.91 | 0.90 | 0.77 | 1.38 | 1.04 | 0.93 | 0.66 | 1.59 | 0.76 |
| 4A01_34 | Titahi Bay | 9699 | 0.81 | 0.99 | 0.91 | 1.14 | 1.37 | 1.04 | 1.13 | 0.93 | 1.25 | 3.00 | 1.13 |
| 4A01_35 | Plimmerton | 5505 | 0.85 | 0.99 | 0.92 | 0.84 | 0.67 | 1.47 | 0.99 | 1.00 | 0.65 | 1.55 | 2.54 |
| 4A01_41 | Lower Hutt | 45033 | 0.81 | 0.99 | 1.05 | 1.08 | 0.99 | 1.19 | 1.07 | 1.03 | 1.18 | 2.82 | 2.51 |
| 4A01_42 | Petone | 15225 | 0.81 | 0.99 | 1.05 | 1.08 | 0.82 | 1.29 | 1.09 | 1.04 | 1.09 | 2.62 | 2.96 |
| 4A01_43 | Stokes Valley | 9171 | 0.81 | 0.99 | 1.05 | 0.88 | 0.94 | 1.20 | 1.06 | 0.92 | 0.81 | 1.95 | 1.85 |
| 4A01_47 | Silverstream | 4965 | 0.86 | 0.99 | 1.05 | 0.82 | 0.65 | 1.40 | 0.99 | 0.92 | 0.61 | 1.46 | 2.01 |
| 4A01_48 | Trentham | 30669 | 0.81 | 0.99 | 1.05 | 0.91 | 0.93 | 1.19 | 1.01 | 0.99 | 0.84 | 2.02 | 2.28 |
| 4A02_44 | Wainuiomata | 17616 | 0.81 | 0.99 | 1.05 | 0.82 | 0.91 | 1.12 | 1.08 | 0.87 | 0.66 | 1.58 | 1.36 |
| 4A03_37 | Paraparaumu | 17697 | 0.81 | 0.99 | 0.98 | 0.85 | 0.96 | 1.15 | 0.99 | 1.06 | 0.78 | 1.86 | 1.53 |
| 4A04_36 | Paekakariki | 1698 | 1.04 | 0.99 | 0.98 | 0.88 | 1.07 | 1.26 | 0.99 | 1.07 | 1.28 | 3.07 | 3.53 |
| 4A05_38 | Waikanae | 7368 | 0.81 | 0.99 | 0.98 | 0.82 | 0.82 | 1.19 | 0.98 | 1.18 | 0.72 | 1.72 | 0.41 |
| 4A07_45 | Point Howard | 798 | 1.19 | 0.99 | 1.04 | 0.87 | 0.55 | 1.81 | 0.99 | 1.05 | 1.11 | 2.66 | 1.25 |
| 4A07_46 | Eastbourne | 4176 | 0.89 | 0.99 | 1.04 | 0.90 | 0.66 | 1.53 | 0.98 | 1.08 | 0.89 | 2.12 | 2.87 |
| 4B01_61 | Masterton | 21159 | 0.81 | 0.99 | 1.05 | 0.96 | 1.17 | 0.99 | 1.00 | 1.02 | 0.96 | 2.29 | 2.65 |
| 4B02_62 | Carterton | 5529 | 0.85 | 0.99 | 1.01 | 0.90 | 1.14 | 0.93 | 0.99 | 1.03 | 0.82 | 1.97 | 2.17 |
| 4B03_63 | Featherston | 3366 | 0.92 | 0.99 | 1.01 | 0.90 | 1.18 | 0.98 | 1.00 | 0.99 | 0.96 | 2.29 | 1.78 |
| 4B04_64 | Greytown | 3597 | 0.91 | 0.99 | 1.01 | 0.97 | 0.84 | 1.02 | 0.98 | 1.01 | 0.76 | 1.81 | 1.11 |
| 4B05_65 | Martinborough | 2016 | 1.01 | 0.99 | 0.98 | 0.97 | 1.02 | 0.97 | 0.99 | 1.05 | 0.99 | 2.37 | 3.47 |
| 4B06_66 | Eketahuna | 2145 | 1.00 | 0.99 | 1.02 | 1.03 | 0.93 | 0.91 | 0.98 | 0.92 | 0.78 | 1.87 | 3.26 |
| 5A01_21 | Christchurch Cty | 37686 | 0.81 | 0.99 | 1.05 | 1.23 | 1.38 | 1.02 | 1.00 | 1.19 | 1.74 | 4.16 | 4.06 |
| 5A01_22 | Addington | 40749 | 0.81 | 0.99 | 1.05 | 0.95 | 1.09 | 1.07 | 0.99 | 1.10 | 1.01 | 2.42 | 2.67 |
| 5A01_23 | St Albans | 42327 | 0.81 | 0.99 | 1.05 | 0.95 | 1.00 | 1.12 | 0.99 | 1.05 | 0.93 | 2.23 | 2.55 |
| 5A01_24 | Woolston | 23787 | 0.81 | 0.99 | 1.05 | 0.92 | 1.21 | 1.04 | 1.02 | 1.05 | 1.03 | 2.47 | 2.31 |
| 5A01_25 | Sockburn | 49587 | 0.81 | 0.99 | 1.05 | 0.95 | 0.93 | 1.06 | 1.00 | 1.01 | 0.80 | 1.92 | 1.67 |
| 5A01_26 | Harewood | 43539 | 0.81 | 0.99 | 1.11 | 0.88 | 0.85 | 1.16 | 0.99 | 1.01 | 0.78 | 1.88 | 1.38 |
| 5A01_27 | New Brighton | 34494 | 0.81 | 0.99 | 1.05 | 0.89 | 1.32 | 0.97 | 1.02 | 1.02 | 0.99 | 2.37 | 2.67 |
| 5A01_28 | Sumner | 4323 | 0.88 | 0.99 | 1.03 | 0.92 | 0.89 | 1.22 | 0.98 | 1.10 | 0.96 | 2.31 | 1.16 |
| 5A01_29 | Lyttelton | 2862 | 0.95 | 0.99 | 1.03 | 0.89 | 0.98 | 1.14 | 0.98 | 1.08 | 1.04 | 2.49 | 3.49 |
| 5A01_30 | Diamond Harbour | 918 | 1.16 | 0.99 | 1.03 | 0.85 | 0.90 | 1.08 | 0.98 | 1.17 | 1.12 | 2.68 | 3.27 |
| 5A01_31 | Brooklands | 1422 | 1.07 | 0.99 | 1.05 | 0.84 | 1.20 | 0.98 | 0.98 | 1.08 | 1.18 | 2.82 | 3.52 |
| 5A01_33 | Governors Bay | 675 | 1.22 | 0.99 | 1.03 | 0.83 | 0.70 | 1.23 | 0.98 | 0.97 | 0.85 | 2.04 | 0.00 |
| 5A02_40 | Kaiapoi | 9573 | 0.81 | 0.99 | 1.05 | 0.84 | 0.91 | 0.99 | 0.98 | 0.98 | 0.61 | 1.47 | 2.40 |
| 5A03_41 | Lincoln | 4548 | 0.88 | 0.99 | 1.14 | 0.97 | 0.67 | 1.07 | 0.98 | 0.96 | 0.65 | 1.56 | 0.66 |
| 5A03_42 | Rolleston | 3057 | 0.94 | 0.99 | 1.14 | 0.84 | 0.74 | 1.08 | 0.98 | 0.87 | 0.61 | 1.47 | 1.64 |
| 5A04_43 | Leeston | 2304 | 0.99 | 0.99 | 1.15 | 0.90 | 0.77 | 1.01 | 0.98 | 0.97 | 0.74 | 1.78 | 0.87 |

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | | temp. | | benefit | | Pac.Is. | | | | |
| | | | | south. | | owned | | income | | occup. | | fitted | actual |
| 5A04_44 | Dunsandel | 924 | 1.16 | 0.99 | 1.14 | 0.97 | 0.78 | 1.00 | 0.99 | 0.96 | 0.94 | 2.25 | 3.25 |
| 5A05_45 | Southbridge | 1209 | 1.10 | 0.99 | 1.16 | 0.85 | 0.81 | 0.96 | 0.98 | 0.98 | 0.80 | 1.92 | 3.31 |
| 5A06_46 | Akaroa | 1629 | 1.05 | 0.99 | 1.05 | 1.01 | 0.99 | 0.97 | 0.98 | 1.14 | 1.19 | 2.85 | 2.46 |
| 5A07_47 | Little River | 294 | 1.41 | 0.99 | 1.05 | 0.87 | 1.33 | 0.90 | 0.99 | 1.13 | 1.70 | 4.07 | 0.00 |
| 5A08_48 | Amberley | 2001 | 1.01 | 0.99 | 1.04 | 0.89 | 1.11 | 0.97 | 0.98 | 1.09 | 1.06 | 2.55 | 1.50 |
| 5A09_49 | Hawarden | 1044 | 1.13 | 0.99 | 1.04 | 0.97 | 0.80 | 0.88 | 0.98 | 1.00 | 0.79 | 1.89 | 1.92 |
| 5A10_60 | Waikari | 702 | 1.22 | 0.99 | 1.04 | 0.99 | 1.03 | 0.91 | 0.98 | 1.02 | 1.17 | 2.81 | 1.42 |
| 5A11_61 | Waipara | 810 | 1.19 | 0.99 | 1.14 | 1.08 | 1.02 | 0.84 | 0.98 | 0.93 | 1.14 | 2.73 | 3.70 |
| 5A12_62 | Ashburton | 17352 | 0.81 | 0.99 | 1.15 | 0.89 | 0.97 | 0.98 | 0.98 | 1.06 | 0.82 | 1.96 | 1.56 |
| 5A13_63 | Methven | 2601 | 0.97 | 0.99 | 1.21 | 1.10 | 0.72 | 0.95 | 0.98 | 0.98 | 0.84 | 2.02 | 3.46 |
| 5A14_64 | Rakaia | 1725 | 1.04 | 0.99 | 1.21 | 0.96 | 1.06 | 0.94 | 0.98 | 1.06 | 1.23 | 2.95 | 2.90 |
| 5A15_65 | Cheviot | 1356 | 1.08 | 0.99 | 1.16 | 1.02 | 0.85 | 0.92 | 0.98 | 1.05 | 1.01 | 2.42 | 2.21 |
| 5A16_66 | Culverden | 861 | 1.17 | 0.99 | 1.25 | 1.13 | 1.01 | 0.94 | 0.99 | 0.99 | 1.54 | 3.70 | 3.48 |
| 5A17_67 | Hanmer | 855 | 1.17 | 0.99 | 1.25 | 1.26 | 0.82 | 1.01 | 0.98 | 1.21 | 1.81 | 4.34 | 3.51 |
| 5A18_68 | Waiau | 543 | 1.27 | 0.99 | 1.25 | 1.07 | 0.93 | 0.94 | 0.98 | 1.11 | 1.61 | 3.87 | 3.68 |
| 5A19_69 | Darfield | 1974 | 1.01 | 0.99 | 1.14 | 0.95 | 0.74 | 0.98 | 0.98 | 0.97 | 0.75 | 1.80 | 1.52 |
| 5A19_70 | Coalgate | 510 | 1.28 | 0.99 | 1.14 | 0.96 | 0.90 | 0.90 | 0.98 | 1.04 | 1.16 | 2.77 | 1.96 |
| 5A19_71 | Sheffield | 483 | 1.30 | 0.99 | 1.14 | 0.93 | 0.86 | 0.89 | 0.98 | 1.00 | 1.02 | 2.44 | 0.00 |
| 5A19_72 | Kirwee | 1254 | 1.10 | 0.99 | 1.14 | 0.86 | 0.71 | 1.14 | 0.98 | 0.90 | 0.77 | 1.84 | 0.80 |
| 5A19_73 | Hororata | 969 | 1.15 | 0.99 | 1.14 | 1.15 | 0.76 | 0.96 | 0.98 | 0.97 | 1.04 | 2.49 | 2.06 |
| 5A20_74 | Springfield | 429 | 1.32 | 0.99 | 1.25 | 0.95 | 0.90 | 0.95 | 0.98 | 0.98 | 1.28 | 3.06 | 0.00 |
| 5A21_75 | Kaikoura | 2748 | 0.96 | 0.99 | 1.04 | 1.00 | 1.09 | 0.92 | 0.98 | 1.06 | 1.02 | 2.45 | 5.82 |
| 5A22_76 | Rangiora | 11127 | 0.81 | 0.99 | 1.14 | 0.85 | 0.87 | 1.01 | 0.98 | 1.01 | 0.68 | 1.62 | 1.71 |
| 5A22_77 | Woodend | 2808 | 0.95 | 0.99 | 1.14 | 0.85 | 0.85 | 1.03 | 0.98 | 0.99 | 0.78 | 1.87 | 1.42 |
| 5A23_78 | Cust | 1092 | 1.12 | 0.99 | 1.14 | 0.89 | 0.64 | 1.01 | 0.98 | 0.88 | 0.63 | 1.52 | 1.83 |
| 5A24_79 | Oxford | 2271 | 0.99 | 0.99 | 1.14 | 0.86 | 0.95 | 0.87 | 0.98 | 0.99 | 0.77 | 1.85 | 1.76 |
| 5B01_21 | Nelson | 31461 | 0.81 | 0.99 | 1.03 | 0.93 | 1.08 | 1.06 | 0.98 | 1.07 | 0.93 | 2.22 | 1.88 |
| 5B01_22 | Stoke | 2715 | 0.96 | 0.99 | 1.03 | 1.04 | 1.34 | 0.94 | 0.99 | 1.10 | 1.41 | 3.37 | 5.89 |
| 5B01_23 | Rai Valley | 363 | 1.36 | 0.99 | 1.03 | 1.07 | 0.87 | 0.92 | 0.99 | 0.89 | 1.06 | 2.53 | 5.51 |
| 5B02_24 | Blenheim | 21336 | 0.81 | 0.99 | 1.01 | 0.91 | 1.05 | 0.99 | 0.98 | 1.06 | 0.81 | 1.93 | 2.16 |
| 5B02_25 | Wairau Valley | 696 | 1.22 | 0.99 | 1.04 | 0.94 | 0.66 | 0.96 | 0.98 | 0.86 | 0.63 | 1.51 | 1.44 |
| 5B02_26 | Renwick | 2790 | 0.95 | 0.99 | 1.04 | 0.88 | 0.81 | 1.04 | 0.98 | 0.95 | 0.68 | 1.63 | 2.87 |
| 5B03_27 | Havelock | 432 | 1.32 | 0.99 | 0.94 | 0.92 | 0.76 | 0.93 | 1.01 | 1.05 | 0.86 | 2.06 | 4.63 |
| 5B04_28 | Ward | 294 | 1.41 | 0.99 | 0.98 | 1.05 | 1.08 | 0.82 | 1.01 | 1.04 | 1.34 | 3.20 | 3.40 |
| 5B04_29 | Seddon | 1056 | 1.13 | 0.99 | 0.98 | 0.97 | 0.85 | 0.93 | 0.98 | 0.95 | 0.78 | 1.86 | 4.73 |
| 5B05_30 | Picton | 5211 | 0.86 | 0.99 | 0.94 | 0.96 | 1.01 | 0.94 | 0.98 | 1.12 | 0.81 | 1.93 | 0.96 |
| 5B06_31 | Mapua | 2064 | 1.01 | 0.99 | 0.99 | 1.01 | 0.93 | 0.96 | 0.98 | 1.09 | 0.96 | 2.30 | 1.45 |
| 5B06_32 | Upper Moutere | 1056 | 1.13 | 0.99 | 0.99 | 1.01 | 0.81 | 0.89 | 0.98 | 0.98 | 0.78 | 1.86 | 0.95 |
| 5B07_33 | Richmond | 11001 | 0.81 | 0.99 | 1.03 | 0.87 | 0.85 | 1.00 | 0.98 | 1.01 | 0.61 | 1.46 | 1.82 |
| 5B08_34 | Wakefield | 3780 | 0.91 | 0.99 | 0.99 | 0.85 | 0.79 | 0.96 | 0.98 | 0.94 | 0.53 | 1.27 | 1.06 |
| 5B08_35 | Tapawera | 1041 | 1.13 | 0.99 | 0.99 | 0.96 | 0.97 | 0.81 | 0.99 | 0.93 | 0.78 | 1.87 | 1.92 |
| 5B09_36 | Motueka | 7770 | 0.81 | 0.99 | 1.05 | 0.96 | 1.26 | 0.88 | 0.98 | 1.05 | 0.93 | 2.22 | 2.45 |
| 5B09_37 | Kaiteriteri | 2727 | 0.96 | 0.99 | 1.05 | 1.00 | 1.12 | 0.91 | 0.98 | 1.14 | 1.13 | 2.71 | 0.00 |
| 5B10_38 | Murchison | 714 | 1.21 | 0.99 | 1.25 | 1.06 | 0.83 | 0.90 | 0.98 | 1.12 | 1.32 | 3.16 | 5.60 |
| 5B11_39 | Takaka | 1158 | 1.11 | 0.99 | 1.07 | 0.89 | 1.20 | 0.84 | 0.99 | 1.00 | 1.03 | 2.47 | 1.73 |
| 5B12_40 | Collingwood | 1104 | 1.12 | 0.99 | 1.07 | 0.96 | 1.07 | 0.84 | 0.98 | 1.06 | 1.07 | 2.56 | 3.62 |
| 5C01_80 | Timaru | 17877 | 0.81 | 1.81 | 1.19 | 0.95 | 1.07 | 1.02 | 0.98 | 1.12 | 1.97 | 4.72 | 4.70 |
| 5C01_81 | Washdyke | 9942 | 0.81 | 0.99 | 1.19 | 0.95 | 1.17 | 0.96 | 0.98 | 1.03 | 1.04 | 2.49 | 1.71 |
| 5C02_82 | Fairlie | 1875 | 1.02 | 0.99 | 1.25 | 0.99 | 0.73 | 0.87 | 0.98 | 0.98 | 0.77 | 1.84 | 4.27 |
| 5C03_83 | Lake Tekapo | 396 | 1.34 | 0.99 | 1.25 | 1.42 | 0.61 | 1.17 | 0.98 | 1.13 | 1.86 | 4.44 | 2.53 |
| 5C04_84 | Geraldine | 4047 | 0.89 | 0.99 | 1.22 | 0.93 | 1.08 | 0.92 | 0.98 | 1.07 | 1.05 | 2.52 | 2.97 |
| 5C05_85 | Pleasant Point | 2397 | 0.98 | 0.99 | 1.25 | 0.90 | 0.90 | 0.96 | 0.99 | 0.98 | 0.91 | 2.18 | 0.83 |
| 5C06_86 | Temuka | 5880 | 0.84 | 0.99 | 1.25 | 0.91 | 1.02 | 0.91 | 0.98 | 1.06 | 0.91 | 2.17 | 2.38 |
| 5C07_87 | St Andrews | 1653 | 1.05 | 0.99 | 1.19 | 0.89 | 0.95 | 0.90 | 0.98 | 0.92 | 0.86 | 2.05 | 1.81 |

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | south. | temp. | owned | benefit | income | Pac.ls. | occup. | | fitted | actual |
| 5C08_88 | Waimate | 4722 | 0.87 | 0.99 | 1.21 | 0.87 | 1.25 | 0.87 | 0.98 | 1.11 | 1.08 | 2.58 | 2.54 |
| 5C09_89 | Glenavy | 1983 | 1.01 | 0.99 | 1.19 | 1.02 | 0.75 | 0.91 | 0.98 | 0.97 | 0.79 | 1.89 | 0.00 |
| 5C10_90 | Twizel | 1110 | 1.12 | 0.99 | 1.25 | 1.25 | 1.48 | 0.95 | 0.98 | 1.29 | 3.07 | 7.36 | 4.50 |
| 5D01_61 | Greymouth | 6525 | 0.82 | 0.99 | 1.05 | 0.93 | 1.12 | 1.04 | 0.98 | 1.07 | 0.97 | 2.31 | 2.76 |
| 5D01_62 | Cobden | 1968 | 1.01 | 0.99 | 1.05 | 0.99 | 2.30 | 0.86 | 0.99 | 1.03 | 2.11 | 5.06 | 3.56 |
| 5D02_63 | Brunner | 729 | 1.21 | 0.99 | 1.05 | 0.90 | 1.49 | 0.84 | 0.99 | 1.05 | 1.49 | 3.56 | 9.60 |
| 5D02_64 | Moana | 711 | 1.21 | 0.99 | 1.05 | 0.99 | 0.94 | 0.88 | 0.98 | 0.99 | 1.00 | 2.39 | 1.41 |
| 5D03_65 | Kumara | 288 | 1.42 | 0.99 | 1.05 | 0.82 | 1.71 | 0.84 | 0.98 | 1.10 | 1.87 | 4.49 | 13.89 |
| 5D04_66 | Ngahere | 612 | 1.24 | 0.99 | 1.05 | 0.91 | 1.04 | 0.88 | 0.99 | 1.02 | 1.10 | 2.64 | 1.63 |
| 5D05_67 | Blackball | 357 | 1.37 | 0.99 | 1.05 | 0.83 | 3.50 | 0.81 | 0.98 | 1.15 | 3.76 | 9.00 | 8.40 |
| 5D06_68 | Reefton | 1791 | 1.03 | 0.99 | 1.23 | 1.09 | 1.20 | 0.90 | 0.98 | 1.07 | 1.58 | 3.78 | 4.47 |
| 5D06_69 | Ikamatua | 291 | 1.42 | 0.99 | 1.03 | 1.04 | 1.06 | 0.97 | 0.98 | 1.00 | 1.52 | 3.64 | 6.87 |
| 5D07_70 | Rununga | 1467 | 1.07 | 0.99 | 1.05 | 0.85 | 2.05 | 0.85 | 0.98 | 1.06 | 1.72 | 4.11 | 4.77 |
| 5D08_71 | Hokitika | 3558 | 0.91 | 0.99 | 1.05 | 0.97 | 1.17 | 1.02 | 0.98 | 1.08 | 1.18 | 2.84 | 4.78 |
| 5D08_73 | Kaniere | 408 | 1.34 | 0.99 | 1.05 | 0.87 | 0.91 | 1.05 | 0.98 | 0.97 | 1.09 | 2.60 | 7.35 |
| 5D09_72 | Fox Glacier | 123 | 1.65 | 0.99 | 1.24 | 1.40 | 0.72 | 1.13 | 0.98 | 1.17 | 2.66 | 6.37 | 0.00 |
| 5D09_74 | Franz Josef | 480 | 1.30 | 0.99 | 1.18 | 1.25 | 1.01 | 1.10 | 0.99 | 1.13 | 2.36 | 5.64 | 0.00 |
| 5D10_75 | Harihari | 396 | 1.34 | 0.99 | 1.11 | 1.02 | 1.04 | 0.93 | 0.98 | 0.98 | 1.40 | 3.35 | 5.05 |
| 5D11_76 | Whataroa | 534 | 1.27 | 0.99 | 1.11 | 1.11 | 0.76 | 0.96 | 0.98 | 0.99 | 1.09 | 2.62 | 1.87 |
| 5D12_77 | Ross | 1311 | 1.09 | 0.99 | 1.24 | 0.92 | 1.02 | 1.02 | 0.98 | 0.98 | 1.23 | 2.94 | 0.00 |
| 5D13_78 | Westport | 6018 | 0.83 | 0.99 | 1.05 | 0.99 | 1.22 | 0.93 | 0.98 | 1.05 | 0.99 | 2.38 | 2.99 |
| 5D14_79 | Granity | 807 | 1.19 | 0.99 | 1.04 | 0.89 | 2.73 | 0.78 | 0.98 | 1.09 | 2.49 | 5.96 | 6.20 |
| 5D15_80 | Karamea | 717 | 1.21 | 0.99 | 1.05 | 1.07 | 1.02 | 0.91 | 1.00 | 1.03 | 1.28 | 3.07 | 2.79 |
| 5D15_81 | Little Wanganui | 132 | 1.63 | 0.99 | 1.05 | 0.90 | 0.79 | 0.77 | 0.98 | 0.96 | 0.86 | 2.06 | 0.00 |
| 5D16_82 | Waimangaroa | 504 | 1.29 | 0.99 | 1.05 | 0.91 | 1.82 | 0.78 | 0.98 | 1.01 | 1.72 | 4.12 | 9.92 |
| 6A01_21 | Dunedin City | 7665 | 0.81 | 1.81 | 1.23 | 1.69 | 0.83 | 0.99 | 1.00 | 1.06 | 2.68 | 6.41 | 7.05 |
| 6A01_22 | St Kilda | 21699 | 0.81 | 0.99 | 1.23 | 0.90 | 1.03 | 1.06 | 0.99 | 1.11 | 1.06 | 2.55 | 3.18 |
| 6A01_23 | Lookout Point | 22869 | 0.81 | 0.99 | 1.24 | 0.92 | 1.15 | 0.99 | 1.00 | 1.02 | 1.06 | 2.55 | 2.62 |
| 6A01_24 | Roslyn | 17742 | 0.81 | 0.99 | 1.23 | 0.97 | 1.05 | 1.14 | 1.01 | 1.03 | 1.19 | 2.84 | 2.54 |
| 6A01_25 | Willowbank | 13350 | 0.81 | 0.99 | 1.23 | 1.12 | 0.86 | 1.00 | 1.01 | 1.03 | 0.97 | 2.33 | 3.00 |
| 6A01_26 | Waitati | 1173 | 1.11 | 0.99 | 1.25 | 0.89 | 1.24 | 1.00 | 0.98 | 1.04 | 1.56 | 3.73 | 5.97 |
| 6A01_27 | Port Chalmers | 3915 | 0.90 | 0.99 | 1.25 | 0.92 | 1.08 | 1.01 | 1.00 | 1.04 | 1.17 | 2.80 | 4.09 |
| 6A01_28 | Ravensbourne | 2112 | 1.00 | 0.99 | 1.23 | 0.81 | 1.00 | 1.06 | 1.00 | 0.98 | 1.04 | 2.48 | 4.26 |
| 6A01_29 | Portobello | 1638 | 1.05 | 0.99 | 1.25 | 0.83 | 1.04 | 1.00 | 0.98 | 1.03 | 1.14 | 2.72 | 4.88 |
| 6A01_31 | Mosgiel | 10062 | 0.81 | 0.99 | 1.25 | 0.91 | 1.01 | 0.97 | 0.98 | 1.04 | 0.91 | 2.17 | 2.19 |
| 6A01_32 | Outram | 2475 | 0.97 | 0.99 | 1.25 | 0.96 | 0.75 | 1.06 | 0.98 | 0.94 | 0.85 | 2.03 | 1.21 |
| 6A01_33 | Brighton | 1590 | 1.05 | 0.99 | 1.25 | 0.81 | 1.13 | 0.94 | 0.98 | 1.06 | 1.18 | 2.83 | 3.77 |
| 6A02_38 | Middlemarch | 630 | 1.24 | 0.99 | 1.25 | 1.11 | 0.68 | 0.85 | 0.98 | 0.91 | 0.89 | 2.13 | 6.35 |
| 6A03_39 | Alexandra | 5286 | 0.85 | 0.99 | 1.23 | 0.90 | 0.83 | 1.03 | 0.98 | 1.07 | 0.83 | 1.99 | 1.32 |
| 6A04_41 | Clyde | 1146 | 1.12 | 0.99 | 1.22 | 0.92 | 0.95 | 1.00 | 0.98 | 1.07 | 1.23 | 2.94 | 0.00 |
| 6A05_42 | Cromwell | 3087 | 0.94 | 0.99 | 1.22 | 1.20 | 0.90 | 1.07 | 0.99 | 1.02 | 1.32 | 3.16 | 2.27 |
| 6A06_43 | Millers Flat | 864 | 1.17 | 0.99 | 1.25 | 1.00 | 0.77 | 0.91 | 0.98 | 1.01 | 1.01 | 2.42 | 1.16 |
| 6A07_44 | Omakau | 891 | 1.17 | 0.99 | 1.25 | 1.02 | 0.77 | 0.93 | 0.98 | 0.98 | 1.02 | 2.43 | 2.24 |
| 6A08_45 | Roxburgh | 942 | 1.15 | 0.99 | 1.25 | 1.01 | 0.91 | 0.93 | 0.98 | 1.13 | 1.34 | 3.21 | 4.25 |
| 6A09_46 | Balclutha | 5811 | 0.84 | 0.99 | 1.25 | 0.92 | 0.88 | 1.01 | 0.98 | 1.05 | 0.89 | 2.13 | 2.41 |
| 6A09_47 | Clutha Valley | 678 | 1.22 | 0.99 | 1.25 | 1.04 | 0.75 | 0.98 | 0.98 | 0.91 | 1.03 | 2.47 | 0.00 |
| 6A09_48 | Kaka Point | 507 | 1.29 | 0.99 | 1.25 | 0.89 | 1.00 | 0.90 | 0.98 | 1.05 | 1.31 | 3.13 | 5.92 |
| 6A10_49 | Clinton | 1002 | 1.14 | 0.99 | 1.25 | 1.01 | 0.69 | 0.92 | 0.98 | 0.93 | 0.82 | 1.97 | 2.00 |
| 6A10_51 | Waiwera South | 282 | 1.42 | 0.99 | 1.25 | 1.18 | 0.75 | 0.85 | 0.98 | 0.87 | 1.14 | 2.73 | 0.00 |
| 6A11_52 | Kaitangata | 1203 | 1.11 | 0.99 | 1.25 | 0.84 | 1.06 | 0.94 | 0.98 | 1.00 | 1.13 | 2.70 | 9.98 |
| 6A12_53 | Milton | 3438 | 0.92 | 0.99 | 1.25 | 0.90 | 1.09 | 0.91 | 0.98 | 1.04 | 1.05 | 2.52 | 3.20 |
| 6A13_54 | Owaka | 849 | 1.18 | 0.99 | 1.25 | 0.90 | 1.06 | 0.85 | 0.98 | 1.04 | 1.20 | 2.87 | 2.36 |
| 6A14_55 | Kurow | 633 | 1.24 | 0.99 | 1.21 | 0.97 | 0.73 | 0.94 | 0.98 | 1.05 | 1.03 | 2.46 | 7.90 |
| 6A15_56 | Omarama | 342 | 1.38 | 0.99 | 1.25 | 1.37 | 0.71 | 1.14 | 0.99 | 1.04 | 1.95 | 4.67 | 0.00 |

Residential fire risk - 1

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | south. | temp. | owned | benefit | income | Pac.Is. | occup. | | fitted | actual |
| 6A16_57 | Otematata | 561 | 1.26 | 0.99 | 1.25 | 1.25 | 0.64 | 1.14 | 0.99 | 1.13 | 1.60 | 3.83 | 0.00 |
| 6A17_58 | Lawrence | 786 | 1.19 | 0.99 | 1.25 | 1.02 | 1.11 | 0.85 | 0.98 | 1.00 | 1.39 | 3.34 | 5.09 |
| 6A17_59 | Waitahuna | 339 | 1.38 | 0.99 | 1.25 | 0.83 | 0.71 | 0.90 | 0.98 | 0.92 | 0.82 | 1.97 | 2.95 |
| 6A18_72 | Oamaru | 12588 | 0.81 | 0.99 | 1.19 | 0.90 | 1.11 | 0.94 | 0.99 | 1.11 | 0.98 | 2.35 | 2.46 |
| 6A18_73 | Weston | 1833 | 1.03 | 0.99 | 1.19 | 0.82 | 0.79 | 0.93 | 0.98 | 0.92 | 0.66 | 1.57 | 1.09 |
| 6A19_74 | Palmerston | 1701 | 1.04 | 0.99 | 1.25 | 0.95 | 0.99 | 0.88 | 0.98 | 1.09 | 1.14 | 2.72 | 2.94 |
| 6A20_75 | Waikouiti | 1344 | 1.08 | 0.99 | 1.25 | 0.83 | 1.37 | 0.94 | 0.98 | 1.15 | 1.65 | 3.96 | 2.23 |
| 6A21_76 | Queenstown | 1401 | 1.08 | 0.99 | 1.21 | 1.12 | 0.61 | 1.26 | 0.98 | 1.08 | 1.19 | 2.86 | 6.42 |
| 6A21_77 | Frankton | 3480 | 0.92 | 0.99 | 1.25 | 1.41 | 0.74 | 1.18 | 0.98 | 1.14 | 1.59 | 3.80 | 1.44 |
| 6A22_78 | Arrowtown | 1176 | 1.11 | 0.99 | 1.25 | 1.01 | 0.97 | 1.15 | 0.98 | 1.17 | 1.79 | 4.29 | 1.70 |
| 6A23_79 | Ranfurly | 1458 | 1.07 | 0.99 | 1.25 | 1.07 | 0.81 | 0.91 | 0.98 | 1.07 | 1.11 | 2.65 | 0.69 |
| 6A24_81 | Naseby | 180 | 1.54 | 0.99 | 1.25 | 1.06 | 0.90 | 0.90 | 1.00 | 1.19 | 1.96 | 4.68 | 11.11 |
| 6A25_85 | Wanaka | 1578 | 1.05 | 0.99 | 1.25 | 1.10 | 0.75 | 1.10 | 0.98 | 1.26 | 1.47 | 3.52 | 5.70 |
| 6A26_82 | Lake Hawea | 267 | 1.44 | 0.99 | 1.25 | 0.94 | 1.49 | 0.89 | 0.98 | 1.15 | 2.52 | 6.03 | 3.75 |
| 6A27_83 | Luggate | 621 | 1.24 | 0.99 | 1.25 | 0.97 | 0.94 | 0.89 | 0.98 | 1.11 | 1.37 | 3.27 | 1.61 |
| 6A28_84 | Duntroon | 855 | 1.17 | 0.99 | 1.21 | 0.98 | 0.75 | 0.90 | 0.98 | 0.95 | 0.86 | 2.07 | 3.51 |
| 6B01_21 | Invercargill | 38499 | 0.81 | 1.81 | 1.25 | 0.90 | 1.00 | 1.08 | 0.99 | 1.04 | 1.82 | 4.36 | 4.36 |
| 6B01_22 | Kingswell | 14142 | 0.81 | 1.81 | 1.25 | 0.89 | 1.30 | 0.95 | 1.04 | 0.94 | 1.96 | 4.70 | 4.38 |
| 6B01_23 | Bluff | 2553 | 0.97 | 0.99 | 1.24 | 0.89 | 1.15 | 0.92 | 1.08 | 1.02 | 1.24 | 2.97 | 3.53 |
| 6B01_24 | Wallacetown | 3417 | 0.92 | 0.99 | 1.25 | 0.82 | 0.72 | 1.04 | 0.98 | 0.90 | 0.61 | 1.47 | 2.05 |
| 6B02_31 | Tokanui | 645 | 1.23 | 0.99 | 1.25 | 0.84 | 0.63 | 1.01 | 0.98 | 0.89 | 0.72 | 1.72 | 4.65 |
| 6B02_32 | Waimahaka | 399 | 1.34 | 0.99 | 1.23 | 0.94 | 0.68 | 0.97 | 0.98 | 0.91 | 0.91 | 2.17 | 10.03 |
| 6B03_33 | Riverton | 2052 | 1.01 | 0.99 | 1.25 | 0.87 | 1.30 | 0.88 | 0.99 | 1.04 | 1.28 | 3.06 | 2.92 |
| 6B03_34 | Colac Bay | 336 | 1.38 | 0.99 | 1.25 | 0.93 | 0.94 | 0.95 | 0.98 | 0.88 | 1.22 | 2.93 | 2.98 |
| 6B04_35 | Orepuki | 276 | 1.43 | 0.99 | 1.25 | 0.94 | 0.90 | 0.84 | 0.98 | 1.03 | 1.26 | 3.03 | 0.00 |
| 6B05_36 | Thornbury | 759 | 1.20 | 0.99 | 1.25 | 0.92 | 0.81 | 0.99 | 0.98 | 0.86 | 0.93 | 2.23 | 0.00 |
| 6B06_37 | Winton | 4041 | 0.89 | 0.99 | 1.25 | 0.86 | 0.75 | 1.01 | 0.98 | 1.04 | 0.75 | 1.78 | 1.73 |
| 6B06_38 | Browns | 612 | 1.24 | 0.99 | 1.25 | 0.93 | 0.59 | 1.05 | 0.98 | 0.90 | 0.79 | 1.90 | 4.90 |
| 6B06_39 | Dipton | 525 | 1.28 | 0.99 | 1.25 | 0.98 | 0.70 | 1.06 | 0.99 | 0.95 | 1.07 | 2.57 | 0.00 |
| 6B07_41 | Edendale | 1125 | 1.12 | 0.99 | 1.25 | 0.90 | 0.73 | 0.98 | 0.98 | 0.95 | 0.84 | 2.00 | 1.78 |
| 6B08_42 | Wyndham | 1518 | 1.06 | 0.99 | 1.25 | 0.95 | 0.78 | 0.99 | 0.98 | 0.95 | 0.89 | 2.14 | 1.98 |
| 6B09_43 | Gore | 9372 | 0.81 | 0.99 | 1.25 | 0.91 | 1.04 | 1.00 | 0.98 | 1.05 | 0.98 | 2.34 | 2.88 |
| 6B09_44 | Pukerau | 585 | 1.25 | 0.99 | 1.25 | 0.94 | 0.68 | 1.02 | 0.98 | 0.87 | 0.85 | 2.04 | 3.42 |
| 6B10_45 | Mataura | 2610 | 0.97 | 0.99 | 1.25 | 0.89 | 1.07 | 0.95 | 0.98 | 0.98 | 1.05 | 2.52 | 1.92 |
| 6B11_46 | Waikaia | 294 | 1.41 | 0.99 | 1.25 | 1.09 | 0.64 | 0.90 | 0.98 | 1.04 | 1.13 | 2.70 | 3.40 |
| 6B12_47 | Waikaka | 849 | 1.18 | 0.99 | 1.25 | 0.92 | 0.64 | 1.00 | 0.98 | 0.87 | 0.73 | 1.74 | 0.00 |
| 6B13_51 | Tapanui | 1959 | 1.02 | 0.99 | 1.25 | 1.00 | 0.75 | 0.99 | 0.98 | 1.00 | 0.92 | 2.21 | 0.51 |
| 6B14_52 | Heriot | 453 | 1.31 | 0.99 | 1.25 | 1.05 | 0.66 | 0.93 | 0.98 | 0.98 | 1.00 | 2.39 | 4.42 |
| 6B15_53 | Riversdale | 846 | 1.18 | 0.99 | 1.25 | 0.90 | 0.81 | 0.95 | 0.98 | 0.97 | 0.97 | 2.33 | 3.55 |
| 6B16_54 | Lumsden | 933 | 1.16 | 0.99 | 1.25 | 1.02 | 0.85 | 0.98 | 0.98 | 0.98 | 1.18 | 2.81 | 5.36 |
| 6B17_55 | Balfour | 1050 | 1.13 | 0.99 | 1.25 | 0.96 | 0.63 | 0.95 | 0.98 | 0.84 | 0.66 | 1.58 | 1.90 |
| 6B18_56 | Mossburn | 723 | 1.21 | 0.99 | 1.25 | 1.10 | 0.62 | 0.99 | 0.98 | 0.97 | 0.96 | 2.29 | 0.00 |
| 6B19_58 | Otautau | 1857 | 1.03 | 0.99 | 1.25 | 0.94 | 0.82 | 0.97 | 0.98 | 0.95 | 0.89 | 2.14 | 2.69 |
| 6B20_57 | Nightcaps | 1251 | 1.10 | 0.99 | 1.25 | 0.98 | 0.81 | 0.96 | 0.98 | 0.98 | 0.99 | 2.38 | 2.40 |
| 6B21_59 | Ohai | 642 | 1.23 | 0.99 | 1.25 | 1.06 | 1.32 | 0.91 | 0.98 | 0.99 | 1.90 | 4.56 | 1.56 |
| 6B22_71 | Orawia | 516 | 1.28 | 0.99 | 1.25 | 0.92 | 0.70 | 0.89 | 0.98 | 0.90 | 0.81 | 1.94 | 7.75 |
| 6B23_72 | Tuatapere | 1062 | 1.13 | 0.99 | 1.25 | 0.99 | 0.90 | 0.86 | 0.99 | 1.01 | 1.08 | 2.58 | 3.77 |
| 6B24_73 | Te Anau | 2175 | 1.00 | 0.99 | 1.25 | 1.13 | 0.74 | 1.03 | 0.98 | 1.04 | 1.09 | 2.61 | 3.22 |
| 6B24_74 | Manapouri | 231 | 1.48 | 0.99 | 1.25 | 1.28 | 0.65 | 1.10 | 0.98 | 1.10 | 1.81 | 4.33 | 0.00 |
| 6B25_75 | Oban | 339 | 1.38 | 0.99 | 1.25 | 0.90 | 0.77 | 1.06 | 0.98 | 1.26 | 1.56 | 3.73 | 5.90 |

Table 13: Fire risk sorted by risk

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | | temp. | | benefit | | Pac.Is. | | | | |
| | | | | south. | | owned | | income | | occup. | | fitted | actual |
| 2E05_29 | Whakapapa | 57 | 1.88 | 0.99 | 1.25 | 2.45 | 0.55 | 1.66 | 1.05 | 1.23 | 6.86 | 16.43 | 0.00 |
| 5D05_67 | Blackball | 357 | 1.37 | 0.99 | 1.05 | 0.83 | 3.50 | 0.81 | 0.98 | 1.15 | 3.76 | 9.00 | 8.40 |
| 5C10_90 | Twizel | 1110 | 1.12 | 0.99 | 1.25 | 1.25 | 1.48 | 0.95 | 0.98 | 1.29 | 3.07 | 7.36 | 4.50 |
| 6A01_21 | Dunedin City | 7665 | 0.81 | 1.81 | 1.23 | 1.69 | 0.83 | 0.99 | 1.00 | 1.06 | 2.68 | 6.41 | 7.05 |
| 5D09_72 | Fox Glacier | 123 | 1.65 | 0.99 | 1.24 | 1.40 | 0.72 | 1.13 | 0.98 | 1.17 | 2.66 | 6.37 | 0.00 |
| 6A26_82 | Lake Hawea | 267 | 1.44 | 0.99 | 1.25 | 0.94 | 1.49 | 0.89 | 0.98 | 1.15 | 2.52 | 6.03 | 3.75 |
| 5D14_79 | Granity | 807 | 1.19 | 0.99 | 1.04 | 0.89 | 2.73 | 0.78 | 0.98 | 1.09 | 2.49 | 5.96 | 6.20 |
| 5D09_74 | Franz Josef | 480 | 1.30 | 0.99 | 1.18 | 1.25 | 1.01 | 1.10 | 0.99 | 1.13 | 2.36 | 5.64 | 0.00 |
| 5D01_62 | Cobden | 1968 | 1.01 | 0.99 | 1.05 | 0.99 | 2.30 | 0.86 | 0.99 | 1.03 | 2.11 | 5.06 | 3.56 |
| 5C01_80 | Timaru | 17877 | 0.81 | 1.81 | 1.19 | 0.95 | 1.07 | 1.02 | 0.98 | 1.12 | 1.97 | 4.72 | 4.70 |
| 6B01_22 | Kingswell | 14142 | 0.81 | 1.81 | 1.25 | 0.89 | 1.30 | 0.95 | 1.04 | 0.94 | 1.96 | 4.70 | 4.38 |
| 4A01_21 | Wellington City | 8928 | 0.81 | 0.99 | 1.00 | 1.56 | 0.75 | 1.68 | 1.04 | 1.20 | 1.96 | 4.70 | 5.38 |
| 6A24_81 | Naseby | 180 | 1.54 | 0.99 | 1.25 | 1.06 | 0.90 | 0.90 | 1.00 | 1.19 | 1.96 | 4.68 | 11.11 |
| 2D05_88 | Mangakino | 2388 | 0.98 | 0.99 | 1.25 | 1.10 | 1.64 | 0.89 | 0.99 | 1.01 | 1.96 | 4.68 | 5.86 |
| 6A15_56 | Omarama | 342 | 1.38 | 0.99 | 1.25 | 1.37 | 0.71 | 1.14 | 0.99 | 1.04 | 1.95 | 4.67 | 0.00 |
| 3B05_75 | Ohakune | 2007 | 1.01 | 0.99 | 1.25 | 1.37 | 1.13 | 1.02 | 0.99 | 0.97 | 1.90 | 4.56 | 3.49 |
| 6B21_59 | Ohai | 642 | 1.23 | 0.99 | 1.25 | 1.06 | 1.32 | 0.91 | 0.98 | 0.99 | 1.90 | 4.56 | 1.56 |
| 3E08_93 | Te Puia Springs | 471 | 1.30 | 0.99 | 0.84 | 1.41 | 1.39 | 0.96 | 1.00 | 0.93 | 1.90 | 4.55 | 8.49 |
| 3A11_38 | Himatangi Beach | 681 | 1.22 | 0.99 | 0.98 | 0.91 | 1.83 | 0.88 | 0.98 | 1.08 | 1.88 | 4.50 | 2.94 |
| 5D03_65 | Kumara | 288 | 1.42 | 0.99 | 1.05 | 0.82 | 1.71 | 0.84 | 0.98 | 1.10 | 1.87 | 4.49 | 13.89 |
| 5C03_83 | Lake Tekapo | 396 | 1.34 | 0.99 | 1.25 | 1.42 | 0.61 | 1.17 | 0.98 | 1.13 | 1.86 | 4.44 | 2.53 |
| 6B01_21 | Invercargill | 38499 | 0.81 | 1.81 | 1.25 | 0.90 | 1.00 | 1.08 | 0.99 | 1.04 | 1.82 | 4.36 | 4.36 |
| 5A17_67 | Hanmer | 855 | 1.17 | 0.99 | 1.25 | 1.26 | 0.82 | 1.01 | 0.98 | 1.21 | 1.81 | 4.34 | 3.51 |
| 6B24_74 | Manapouri | 231 | 1.48 | 0.99 | 1.25 | 1.28 | 0.65 | 1.10 | 0.98 | 1.10 | 1.81 | 4.33 | 0.00 |
| 6A22_78 | Arrowtown | 1176 | 1.11 | 0.99 | 1.25 | 1.01 | 0.97 | 1.15 | 0.98 | 1.17 | 1.79 | 4.29 | 1.70 |
| 1A06_40 | Oneroa | 2769 | 0.96 | 0.99 | 0.74 | 0.92 | 2.57 | 0.87 | 0.99 | 1.24 | 1.79 | 4.27 | 7.22 |
| 5A01_21 | Christchurch Cty | 37686 | 0.81 | 0.99 | 1.05 | 1.23 | 1.38 | 1.02 | 1.00 | 1.19 | 1.74 | 4.16 | 4.06 |
| 3C10_56 | Okaiawa | 672 | 1.22 | 0.99 | 1.05 | 1.22 | 1.08 | 1.12 | 0.98 | 0.94 | 1.73 | 4.14 | 2.98 |
| 5D16_82 | Waimangaroa | 504 | 1.29 | 0.99 | 1.05 | 0.91 | 1.82 | 0.78 | 0.98 | 1.01 | 1.72 | 4.12 | 9.92 |
| 5D07_70 | Rununga | 1467 | 1.07 | 0.99 | 1.05 | 0.85 | 2.05 | 0.85 | 0.98 | 1.06 | 1.72 | 4.11 | 4.77 |
| 5A07_47 | Little River | 294 | 1.41 | 0.99 | 1.05 | 0.87 | 1.33 | 0.90 | 0.99 | 1.13 | 1.70 | 4.07 | 0.00 |
| 1A10_53 | Port Waikato | 852 | 1.17 | 0.99 | 0.88 | 1.23 | 1.42 | 0.88 | 0.98 | 1.07 | 1.67 | 4.00 | 4.69 |
| 3E07_91 | Tikitiki | 540 | 1.27 | 0.99 | 0.84 | 1.25 | 2.07 | 0.68 | 0.98 | 0.91 | 1.66 | 3.98 | 0.00 |
| 6A20_75 | Waikouiti | 1344 | 1.08 | 0.99 | 1.25 | 0.83 | 1.37 | 0.94 | 0.98 | 1.15 | 1.65 | 3.96 | 2.23 |
| 3C12_58 | Patea | 2163 | 1.00 | 0.99 | 1.02 | 1.10 | 1.75 | 0.84 | 0.98 | 1.03 | 1.65 | 3.95 | 1.85 |
| 1B13_70 | Rawene | 1137 | 1.12 | 0.99 | 0.82 | 1.02 | 2.44 | 0.79 | 0.98 | 0.93 | 1.64 | 3.93 | 2.64 |
| 5A18_68 | Waiau | 543 | 1.27 | 0.99 | 1.25 | 1.07 | 0.93 | 0.94 | 0.98 | 1.11 | 1.61 | 3.87 | 3.68 |
| 6A16_57 | Otematata | 561 | 1.26 | 0.99 | 1.25 | 1.25 | 0.64 | 1.14 | 0.99 | 1.13 | 1.60 | 3.83 | 0.00 |
| 2A13_48 | Benneydale | 780 | 1.19 | 0.99 | 1.25 | 1.17 | 1.15 | 0.85 | 0.98 | 0.95 | 1.59 | 3.80 | 5.13 |
| 6A21_77 | Frankton | 3480 | 0.92 | 0.99 | 1.25 | 1.41 | 0.74 | 1.18 | 0.98 | 1.14 | 1.59 | 3.80 | 1.44 |
| 5D06_68 | Reefton | 1791 | 1.03 | 0.99 | 1.23 | 1.09 | 1.20 | 0.90 | 0.98 | 1.07 | 1.58 | 3.78 | 4.47 |
| 3E08_92 | Tokomaru Bay | 750 | 1.20 | 0.99 | 0.84 | 1.30 | 1.65 | 0.81 | 0.98 | 0.91 | 1.56 | 3.74 | 2.67 |
| 6A01_26 | Waitati | 1173 | 1.11 | 0.99 | 1.25 | 0.89 | 1.24 | 1.00 | 0.98 | 1.04 | 1.56 | 3.73 | 5.97 |
| 6B25_75 | Oban | 339 | 1.38 | 0.99 | 1.25 | 0.90 | 0.77 | 1.06 | 0.98 | 1.26 | 1.56 | 3.73 | 5.90 |
| 5A16_66 | Culverden | 861 | 1.17 | 0.99 | 1.25 | 1.13 | 1.01 | 0.94 | 0.99 | 0.99 | 1.54 | 3.70 | 3.48 |
| 2D01_83 | Rotoma | 978 | 1.15 | 0.99 | 0.87 | 1.06 | 1.52 | 0.97 | 1.01 | 0.98 | 1.54 | 3.68 | 1.02 |
| 2E05_28 | National Park | 612 | 1.24 | 0.99 | 1.25 | 1.30 | 0.82 | 0.96 | 0.99 | 0.97 | 1.53 | 3.67 | 1.63 |
| 3B08_78 | Mangaweka | 306 | 1.40 | 0.99 | 1.15 | 1.03 | 1.12 | 0.86 | 0.98 | 0.99 | 1.53 | 3.66 | 3.27 |
| 5D06_69 | Ikamatua | 291 | 1.42 | 0.99 | 1.03 | 1.04 | 1.06 | 0.97 | 0.98 | 1.00 | 1.52 | 3.64 | 6.87 |
| 3A11_37 | Foxton Beach | 1872 | 1.02 | 0.99 | 0.98 | 0.87 | 1.76 | 0.85 | 0.99 | 1.17 | 1.51 | 3.60 | 4.81 |
| 2B05_64 | Pauanui | 705 | 1.21 | 0.99 | 0.81 | 1.06 | 1.00 | 1.03 | 1.00 | 1.40 | 1.49 | 3.57 | 0.00 |
| 1A01_31 | Otahuhu | 14904 | 0.81 | 0.99 | 0.75 | 1.30 | 1.44 | 0.93 | 1.53 | 0.92 | 1.49 | 3.56 | 3.35 |
| 5D02_63 | Brunner | 729 | 1.21 | 0.99 | 1.05 | 0.90 | 1.49 | 0.84 | 0.99 | 1.05 | 1.49 | 3.56 | 9.60 |
| 1A01_20 | City | 6291 | 0.83 | 0.99 | 0.75 | 1.63 | 0.84 | 1.35 | 1.11 | 1.17 | 1.48 | 3.55 | 4.77 |

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | | temp. | | benefit | | Pac.Is. | | | | |
| | | | | south. | | owned | | income | | occup. | | fitted | actual |
| 6A25_85 | Wanaka | 1578 | 1.05 | 0.99 | 1.25 | 1.10 | 0.75 | 1.10 | 0.98 | 1.26 | 1.47 | 3.52 | 5.70 |
| 2D07_87 | Tokoroa | 16869 | 0.81 | 0.99 | 1.25 | 0.96 | 1.28 | 1.12 | 1.17 | 0.90 | 1.46 | 3.50 | 3.56 |
| 1B11_68 | Kohukohu | 453 | 1.31 | 0.99 | 0.82 | 1.02 | 1.70 | 0.78 | 0.98 | 1.03 | 1.46 | 3.49 | 6.62 |
| 3B06_76 | Raetihi | 1545 | 1.06 | 0.99 | 1.05 | 1.05 | 1.62 | 0.85 | 0.99 | 0.93 | 1.45 | 3.48 | 7.12 |
| 3B09_79 | Hunterville | 1044 | 1.13 | 0.99 | 1.15 | 1.12 | 1.01 | 0.95 | 0.98 | 1.05 | 1.45 | 3.46 | 1.92 |
| 3A09_35 | Waiterere | 660 | 1.23 | 0.99 | 0.98 | 0.91 | 1.27 | 0.93 | 1.00 | 1.13 | 1.44 | 3.45 | 1.52 |
| 1A06_41 | Onetangi | 2247 | 0.99 | 0.99 | 0.74 | 0.92 | 2.12 | 0.85 | 1.00 | 1.18 | 1.43 | 3.43 | 0.89 |
| 3E02_84 | Matawai | 591 | 1.25 | 0.99 | 1.14 | 1.32 | 0.84 | 1.00 | 0.98 | 0.93 | 1.43 | 3.43 | 3.38 |
| 4A01_22 | Newtown | 20214 | 0.81 | 0.99 | 1.00 | 1.25 | 0.90 | 1.30 | 1.13 | 1.08 | 1.43 | 3.43 | 3.51 |
| 5B01_22 | Stoke | 2715 | 0.96 | 0.99 | 1.03 | 1.04 | 1.34 | 0.94 | 0.99 | 1.10 | 1.41 | 3.37 | 5.89 |
| 5D10_75 | Harihari | 396 | 1.34 | 0.99 | 1.11 | 1.02 | 1.04 | 0.93 | 0.98 | 0.98 | 1.40 | 3.35 | 5.05 |
| 3E05_88 | Ruatoria | 1332 | 1.09 | 0.99 | 0.84 | 1.38 | 1.75 | 0.76 | 0.98 | 0.86 | 1.40 | 3.35 | 6.76 |
| 6A17_58 | Lawrence | 786 | 1.19 | 0.99 | 1.25 | 1.02 | 1.11 | 0.85 | 0.98 | 1.00 | 1.39 | 3.34 | 5.09 |
| 2E02_23 | Turangi | 4431 | 0.88 | 0.99 | 1.13 | 1.12 | 1.35 | 0.93 | 0.99 | 1.00 | 1.38 | 3.30 | 6.32 |
| 6A27_83 | Luggate | 621 | 1.24 | 0.99 | 1.25 | 0.97 | 0.94 | 0.89 | 0.98 | 1.11 | 1.37 | 3.27 | 1.61 |
| 6A08_45 | Roxburgh | 942 | 1.15 | 0.99 | 1.25 | 1.01 | 0.91 | 0.93 | 0.98 | 1.13 | 1.34 | 3.21 | 4.25 |
| 3A12_39 | Shannon | 2160 | 1.00 | 0.99 | 0.98 | 1.01 | 1.66 | 0.88 | 1.01 | 0.93 | 1.34 | 3.21 | 4.63 |
| 2B07_62 | Hahei | 567 | 1.26 | 0.99 | 0.84 | 1.04 | 1.05 | 0.95 | 0.98 | 1.24 | 1.34 | 3.21 | 1.76 |
| 5B04_28 | Ward | 294 | 1.41 | 0.99 | 0.98 | 1.05 | 1.08 | 0.82 | 1.01 | 1.04 | 1.34 | 3.20 | 3.40 |
| 1A01_26 | Ponsonby | 26370 | 0.81 | 0.99 | 0.75 | 1.24 | 0.97 | 1.34 | 1.30 | 1.05 | 1.34 | 3.20 | 3.75 |
| 3C06_49 | Toko | 444 | 1.32 | 0.99 | 1.11 | 1.16 | 0.98 | 0.92 | 0.99 | 0.90 | 1.33 | 3.19 | 4.50 |
| 2B10_65 | Whangamata | 3132 | 0.94 | 0.99 | 0.84 | 0.96 | 1.63 | 0.88 | 0.99 | 1.25 | 1.33 | 3.18 | 2.87 |
| 5B10_38 | Murchison | 714 | 1.21 | 0.99 | 1.25 | 1.06 | 0.83 | 0.90 | 0.98 | 1.12 | 1.32 | 3.16 | 5.60 |
| 6A05_42 | Cromwell | 3087 | 0.94 | 0.99 | 1.22 | 1.20 | 0.90 | 1.07 | 0.99 | 1.02 | 1.32 | 3.16 | 2.27 |
| 6A09_48 | Kaka Point | 507 | 1.29 | 0.99 | 1.25 | 0.89 | 1.00 | 0.90 | 0.98 | 1.05 | 1.31 | 3.13 | 5.92 |
| 1B22_71 | Omapere | 1266 | 1.10 | 0.99 | 0.82 | 1.02 | 1.98 | 0.74 | 0.99 | 0.99 | 1.30 | 3.12 | 0.79 |
| 2D01_84 | Mamaku | 621 | 1.24 | 0.99 | 1.01 | 0.88 | 1.62 | 0.83 | 0.99 | 0.89 | 1.30 | 3.12 | 3.22 |
| 3D09_69 | Ormondville | 363 | 1.36 | 0.99 | 1.08 | 0.88 | 1.16 | 0.89 | 0.98 | 0.99 | 1.30 | 3.10 | 0.00 |
| 1A01_33 | Otara | 24867 | 0.81 | 0.99 | 0.75 | 1.30 | 1.58 | 0.80 | 2.13 | 0.60 | 1.28 | 3.07 | 3.18 |
| 5D15_80 | Karamea | 717 | 1.21 | 0.99 | 1.05 | 1.07 | 1.02 | 0.91 | 1.00 | 1.03 | 1.28 | 3.07 | 2.79 |
| 4A04_36 | Paekakariki | 1698 | 1.04 | 0.99 | 0.98 | 0.88 | 1.07 | 1.26 | 0.99 | 1.07 | 1.28 | 3.07 | 3.53 |
| 4A01_23 | Thorndon | 7662 | 0.81 | 0.99 | 1.00 | 1.14 | 0.62 | 2.00 | 0.99 | 1.14 | 1.28 | 3.07 | 2.87 |
| 5A20_74 | Springfield | 429 | 1.32 | 0.99 | 1.25 | 0.95 | 0.90 | 0.95 | 0.98 | 0.98 | 1.28 | 3.06 | 0.00 |
| 6B03_33 | Riverton | 2052 | 1.01 | 0.99 | 1.25 | 0.87 | 1.30 | 0.88 | 0.99 | 1.04 | 1.28 | 3.06 | 2.92 |
| 4A01_25 | Brooklyn | 12612 | 0.81 | 0.99 | 1.00 | 1.19 | 0.75 | 1.53 | 1.04 | 1.13 | 1.27 | 3.05 | 4.12 |
| 3D05_62 | Ashley Clinton | 255 | 1.45 | 0.99 | 1.08 | 1.25 | 0.78 | 0.93 | 0.98 | 0.93 | 1.27 | 3.05 | 0.00 |
| 1A01_25 | Parnell | 7644 | 0.81 | 0.99 | 0.75 | 1.31 | 0.84 | 1.55 | 1.03 | 1.19 | 1.27 | 3.05 | 2.49 |
| 6B04_35 | Orepuki | 276 | 1.43 | 0.99 | 1.25 | 0.94 | 0.90 | 0.84 | 0.98 | 1.03 | 1.26 | 3.03 | 0.00 |
| 3C11_57 | Manaia | 2115 | 1.00 | 0.99 | 1.05 | 1.10 | 1.20 | 1.01 | 0.98 | 0.93 | 1.26 | 3.01 | 1.89 |
| 4A01_34 | Titahi Bay | 9699 | 0.81 | 0.99 | 0.91 | 1.14 | 1.37 | 1.04 | 1.13 | 0.93 | 1.25 | 3.00 | 1.13 |
| 2A11_50 | Kawhia | 984 | 1.15 | 0.99 | 0.87 | 1.03 | 1.48 | 0.81 | 0.98 | 1.04 | 1.25 | 2.99 | 4.07 |
| 6B01_23 | Bluff | 2553 | 0.97 | 0.99 | 1.24 | 0.89 | 1.15 | 0.92 | 1.08 | 1.02 | 1.24 | 2.97 | 3.53 |
| 1B08_65 | Kaikohe | 5856 | 0.84 | 0.99 | 0.83 | 1.09 | 2.07 | 0.87 | 1.00 | 0.91 | 1.23 | 2.95 | 2.56 |
| 5A14_64 | Rakaia | 1725 | 1.04 | 0.99 | 1.21 | 0.96 | 1.06 | 0.94 | 0.98 | 1.06 | 1.23 | 2.95 | 2.90 |
| 5D12_77 | Ross | 1311 | 1.09 | 0.99 | 1.24 | 0.92 | 1.02 | 1.02 | 0.98 | 0.98 | 1.23 | 2.94 | 0.00 |
| 6A04_41 | Clyde | 1146 | 1.12 | 0.99 | 1.22 | 0.92 | 0.95 | 1.00 | 0.98 | 1.07 | 1.23 | 2.94 | 0.00 |
| 6B03_34 | Colac Bay | 336 | 1.38 | 0.99 | 1.25 | 0.93 | 0.94 | 0.95 | 0.98 | 0.88 | 1.22 | 2.93 | 2.98 |
| 4A01_31 | Porirua | 29343 | 0.81 | 0.99 | 0.91 | 1.13 | 1.16 | 1.10 | 1.46 | 0.79 | 1.21 | 2.89 | 3.20 |
| 3E10_95 | Nuhaka | 1233 | 1.10 | 0.99 | 0.89 | 1.11 | 1.41 | 0.85 | 0.98 | 0.95 | 1.21 | 2.89 | 0.00 |
| 3B02_72 | Waverley | 1407 | 1.08 | 0.99 | 0.89 | 1.04 | 1.28 | 0.91 | 0.98 | 1.05 | 1.20 | 2.88 | 3.55 |
| 3E04_87 | Tolaga Bay | 1389 | 1.08 | 0.99 | 0.85 | 1.21 | 1.49 | 0.82 | 0.99 | 0.90 | 1.20 | 2.87 | 4.32 |
| 6A13_54 | Owaka | 849 | 1.18 | 0.99 | 1.25 | 0.90 | 1.06 | 0.85 | 0.98 | 1.04 | 1.20 | 2.87 | 2.36 |
| 1B14_18 | Ahipara | 1065 | 1.13 | 0.99 | 0.74 | 0.99 | 1.79 | 0.85 | 0.98 | 0.98 | 1.20 | 2.87 | 0.94 |
| 6A21_76 | Queenstown | 1401 | 1.08 | 0.99 | 1.21 | 1.12 | 0.61 | 1.26 | 0.98 | 1.08 | 1.19 | 2.86 | 6.42 |

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | south. | temp. | owned | benefit | income | Pac.Is. | occup. | | fitted | actual |
| 2B05_63 | Tairua | 855 | 1.17 | 0.99 | 0.84 | 0.94 | 1.17 | 0.88 | 0.98 | 1.27 | 1.19 | 2.85 | 1.17 |
| 5A06_46 | Akaroa | 1629 | 1.05 | 0.99 | 1.05 | 1.01 | 0.99 | 0.97 | 0.98 | 1.14 | 1.19 | 2.85 | 2.46 |
| 6A01_24 | Roslyn | 17742 | 0.81 | 0.99 | 1.23 | 0.97 | 1.05 | 1.14 | 1.01 | 1.03 | 1.19 | 2.84 | 2.54 |
| 5D08_71 | Hokitika | 3558 | 0.91 | 0.99 | 1.05 | 0.97 | 1.17 | 1.02 | 0.98 | 1.08 | 1.18 | 2.84 | 4.78 |
| 2B09_67 | Waihi Beach | 1953 | 1.02 | 0.99 | 0.86 | 1.01 | 1.18 | 0.95 | 0.98 | 1.23 | 1.18 | 2.83 | 2.05 |
| 6A01_33 | Brighton | 1590 | 1.05 | 0.99 | 1.25 | 0.81 | 1.13 | 0.94 | 0.98 | 1.06 | 1.18 | 2.83 | 3.77 |
| 5A01_31 | Brooklands | 1422 | 1.07 | 0.99 | 1.05 | 0.84 | 1.20 | 0.98 | 0.98 | 1.08 | 1.18 | 2.82 | 3.52 |
| 3C09_53 | Opunake | 2931 | 0.95 | 0.99 | 1.11 | 1.05 | 1.18 | 0.99 | 0.98 | 0.94 | 1.18 | 2.82 | 2.05 |
| 4A01_41 | Lower Hutt | 45033 | 0.81 | 0.99 | 1.05 | 1.08 | 0.99 | 1.19 | 1.07 | 1.03 | 1.18 | 2.82 | 2.51 |
| 6B16_54 | Lumsden | 933 | 1.16 | 0.99 | 1.25 | 1.02 | 0.85 | 0.98 | 0.98 | 0.98 | 1.18 | 2.81 | 5.36 |
| 5A10_60 | Waikari | 702 | 1.22 | 0.99 | 1.04 | 0.99 | 1.03 | 0.91 | 0.98 | 1.02 | 1.17 | 2.81 | 1.42 |
| 6A01_27 | Port Chalmers | 3915 | 0.90 | 0.99 | 1.25 | 0.92 | 1.08 | 1.01 | 1.00 | 1.04 | 1.17 | 2.80 | 4.09 |
| 2E06_27 | Owhango | 369 | 1.36 | 0.99 | 0.97 | 1.13 | 0.85 | 0.89 | 0.99 | 1.05 | 1.17 | 2.79 | 10.84 |
| 5A19_70 | Coalgate | 510 | 1.28 | 0.99 | 1.14 | 0.96 | 0.90 | 0.90 | 0.98 | 1.04 | 1.16 | 2.77 | 1.96 |
| 2B09_68 | Athenree | 456 | 1.31 | 0.99 | 0.86 | 0.87 | 1.22 | 0.89 | 0.98 | 1.12 | 1.16 | 2.77 | 2.19 |
| 2B13_74 | Maketu | 1392 | 1.08 | 0.99 | 0.91 | 1.01 | 1.33 | 0.88 | 1.00 | 1.00 | 1.15 | 2.76 | 0.00 |
| 3A02_26 | Tangimoana | 384 | 1.35 | 0.99 | 0.98 | 0.85 | 1.13 | 0.84 | 0.99 | 1.09 | 1.15 | 2.76 | 0.00 |
| 1A01_22 | Onehunga | 17037 | 0.81 | 0.99 | 0.78 | 1.15 | 1.03 | 1.17 | 1.21 | 1.11 | 1.15 | 2.75 | 2.41 |
| 3A08_33 | Kimbolton | 297 | 1.41 | 0.99 | 1.04 | 1.01 | 0.82 | 1.00 | 0.98 | 0.96 | 1.14 | 2.73 | 0.00 |
| 6A10_51 | Waiwera South | 282 | 1.42 | 0.99 | 1.25 | 1.18 | 0.75 | 0.85 | 0.98 | 0.87 | 1.14 | 2.73 | 0.00 |
| 5A11_61 | Waipara | 810 | 1.19 | 0.99 | 1.14 | 1.08 | 1.02 | 0.84 | 0.98 | 0.93 | 1.14 | 2.73 | 3.70 |
| 6A01_29 | Portobello | 1638 | 1.05 | 0.99 | 1.25 | 0.83 | 1.04 | 1.00 | 0.98 | 1.03 | 1.14 | 2.72 | 4.88 |
| 6A19_74 | Palmerston | 1701 | 1.04 | 0.99 | 1.25 | 0.95 | 0.99 | 0.88 | 0.98 | 1.09 | 1.14 | 2.72 | 2.94 |
| 2D03_89 | Murupara | 3651 | 0.91 | 0.99 | 1.10 | 1.11 | 1.47 | 0.85 | 0.99 | 0.82 | 1.13 | 2.71 | 0.27 |
| 5B09_37 | Kaiteriteri | 2727 | 0.96 | 0.99 | 1.05 | 1.00 | 1.12 | 0.91 | 0.98 | 1.14 | 1.13 | 2.71 | 0.00 |
| 1A01_76 | Piha | 783 | 1.19 | 0.99 | 0.84 | 0.95 | 1.01 | 1.14 | 1.01 | 1.03 | 1.13 | 2.71 | 1.28 |
| 6A11_52 | Kaitangata | 1203 | 1.11 | 0.99 | 1.25 | 0.84 | 1.06 | 0.94 | 0.98 | 1.00 | 1.13 | 2.70 | 9.98 |
| 6B11_46 | Waikaia | 294 | 1.41 | 0.99 | 1.25 | 1.09 | 0.64 | 0.90 | 0.98 | 1.04 | 1.13 | 2.70 | 3.40 |
| 3B07_77 | Taihape | 3657 | 0.91 | 0.99 | 1.15 | 1.16 | 1.02 | 0.96 | 0.98 | 0.98 | 1.13 | 2.69 | 1.37 |
| 3D01_56 | Hastings | 42444 | 0.81 | 0.99 | 0.97 | 1.00 | 1.52 | 0.94 | 1.02 | 0.99 | 1.12 | 2.68 | 2.73 |
| 5A01_30 | Diamond Harbour | 918 | 1.16 | 0.99 | 1.03 | 0.85 | 0.90 | 1.08 | 0.98 | 1.17 | 1.12 | 2.68 | 3.27 |
| 4A07_45 | Point Howard | 798 | 1.19 | 0.99 | 1.04 | 0.87 | 0.55 | 1.81 | 0.99 | 1.05 | 1.11 | 2.66 | 1.25 |
| 3A10_36 | Foxton | 4152 | 0.89 | 0.99 | 0.98 | 1.02 | 1.43 | 0.91 | 0.99 | 0.98 | 1.11 | 2.66 | 0.72 |
| 2A02_33 | Ngaruawahia | 6663 | 0.82 | 0.99 | 0.93 | 1.00 | 1.87 | 0.91 | 0.99 | 0.88 | 1.11 | 2.66 | 2.40 |
| 6A23_79 | Ranfurly | 1458 | 1.07 | 0.99 | 1.25 | 1.07 | 0.81 | 0.91 | 0.98 | 1.07 | 1.11 | 2.65 | 0.69 |
| 5D04_66 | Ngahere | 612 | 1.24 | 0.99 | 1.05 | 0.91 | 1.04 | 0.88 | 0.99 | 1.02 | 1.10 | 2.64 | 1.63 |
| 3D05_61 | Takapau | 1188 | 1.11 | 0.99 | 1.07 | 1.07 | 1.05 | 0.93 | 0.98 | 0.90 | 1.10 | 2.63 | 0.00 |
| 4A01_42 | Petone | 15225 | 0.81 | 0.99 | 1.05 | 1.08 | 0.82 | 1.29 | 1.09 | 1.04 | 1.09 | 2.62 | 2.96 |
| 5D11_76 | Whataroa | 534 | 1.27 | 0.99 | 1.11 | 1.11 | 0.76 | 0.96 | 0.98 | 0.99 | 1.09 | 2.62 | 1.87 |
| 2D01_61 | Kaingaroa | 2160 | 1.00 | 0.99 | 1.11 | 1.24 | 1.03 | 0.95 | 0.98 | 0.83 | 1.09 | 2.61 | 1.39 |
| 6B24_73 | Te Anau | 2175 | 1.00 | 0.99 | 1.25 | 1.13 | 0.74 | 1.03 | 0.98 | 1.04 | 1.09 | 2.61 | 3.22 |
| 2E03_25 | Taumarunui | 6423 | 0.83 | 0.99 | 0.97 | 1.10 | 1.37 | 0.94 | 0.99 | 0.98 | 1.09 | 2.61 | 2.18 |
| 1A01_23 | Mt Wellington | 26490 | 0.81 | 0.99 | 0.75 | 1.15 | 1.19 | 1.08 | 1.20 | 1.01 | 1.09 | 2.61 | 3.10 |
| 5D08_73 | Kaniere | 408 | 1.34 | 0.99 | 1.05 | 0.87 | 0.91 | 1.05 | 0.98 | 0.97 | 1.09 | 2.60 | 7.35 |
| 5C08_88 | Waimate | 4722 | 0.87 | 0.99 | 1.21 | 0.87 | 1.25 | 0.87 | 0.98 | 1.11 | 1.08 | 2.58 | 2.54 |
| 6B23_72 | Tuatapere | 1062 | 1.13 | 0.99 | 1.25 | 0.99 | 0.90 | 0.86 | 0.99 | 1.01 | 1.08 | 2.58 | 3.77 |
| 6B06_39 | Dipton | 525 | 1.28 | 0.99 | 1.25 | 0.98 | 0.70 | 1.06 | 0.99 | 0.95 | 1.07 | 2.57 | 0.00 |
| 1A01_35 | Mangere | 36060 | 0.81 | 0.99 | 0.75 | 1.15 | 1.40 | 0.89 | 1.79 | 0.70 | 1.07 | 2.57 | 2.19 |
| 3D06_66 | Tikokino | 558 | 1.26 | 0.99 | 1.01 | 1.24 | 0.75 | 0.93 | 0.98 | 0.99 | 1.07 | 2.56 | 0.00 |
| 5B12_40 | Collingwood | 1104 | 1.12 | 0.99 | 1.07 | 0.96 | 1.07 | 0.84 | 0.98 | 1.06 | 1.07 | 2.56 | 3.62 |
| 3D06_64 | Onga Onga | 450 | 1.31 | 0.99 | 1.07 | 1.05 | 0.85 | 0.94 | 0.99 | 0.92 | 1.07 | 2.56 | 2.22 |
| 6A01_23 | Lookout Point | 22869 | 0.81 | 0.99 | 1.24 | 0.92 | 1.15 | 0.99 | 1.00 | 1.02 | 1.06 | 2.55 | 2.62 |
| 5A08_48 | Amberley | 2001 | 1.01 | 0.99 | 1.04 | 0.89 | 1.11 | 0.97 | 0.98 | 1.09 | 1.06 | 2.55 | 1.50 |
| 6A01_22 | St Kilda | 21699 | 0.81 | 0.99 | 1.23 | 0.90 | 1.03 | 1.06 | 0.99 | 1.11 | 1.06 | 2.55 | 3.18 |

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | south. | temp. | owned | benefit | income | Pac.ls. | occup. | | fitted | actual |
| 2B01_73 | Papamoa | 3873 | 0.90 | 0.99 | 0.82 | 0.96 | 1.51 | 0.98 | 0.99 | 1.03 | 1.06 | 2.54 | 1.81 |
| 3A14_42 | Rangiwahia | 288 | 1.42 | 0.99 | 1.15 | 1.16 | 0.75 | 0.88 | 0.98 | 0.88 | 1.06 | 2.53 | 3.47 |
| 5B01_23 | Rai Valley | 363 | 1.36 | 0.99 | 1.03 | 1.07 | 0.87 | 0.92 | 0.99 | 0.89 | 1.06 | 2.53 | 5.51 |
| 2E01_21 | Taupo | 17799 | 0.81 | 0.99 | 1.07 | 1.05 | 1.03 | 1.11 | 1.00 | 1.03 | 1.05 | 2.52 | 2.81 |
| 5C04_84 | Geraldine | 4047 | 0.89 | 0.99 | 1.22 | 0.93 | 1.08 | 0.92 | 0.98 | 1.07 | 1.05 | 2.52 | 2.97 |
| 6A12_53 | Milton | 3438 | 0.92 | 0.99 | 1.25 | 0.90 | 1.09 | 0.91 | 0.98 | 1.04 | 1.05 | 2.52 | 3.20 |
| 2A04_32 | Huntly | 10755 | 0.81 | 0.99 | 0.90 | 1.07 | 1.62 | 0.92 | 1.00 | 0.92 | 1.05 | 2.52 | 3.16 |
| 4A01_24 | Kilbirnie | 27657 | 0.81 | 0.99 | 1.00 | 1.09 | 0.80 | 1.34 | 1.06 | 1.07 | 1.05 | 2.52 | 2.31 |
| 6B10_45 | Mataura | 2610 | 0.97 | 0.99 | 1.25 | 0.89 | 1.07 | 0.95 | 0.98 | 0.98 | 1.05 | 2.52 | 1.92 |
| 2D01_81 | Rotorua | 49239 | 0.81 | 0.99 | 0.99 | 0.99 | 1.29 | 1.04 | 1.01 | 0.98 | 1.05 | 2.51 | 2.80 |
| 1A01_27 | Ellerslie | 12489 | 0.81 | 0.99 | 0.75 | 1.14 | 0.96 | 1.26 | 1.14 | 1.10 | 1.05 | 2.50 | 2.64 |
| 3B01_71 | Wanganui | 41040 | 0.81 | 0.99 | 0.89 | 0.96 | 1.49 | 0.97 | 0.99 | 1.05 | 1.04 | 2.49 | 2.78 |
| 1B18_76 | Russell | 1320 | 1.09 | 0.99 | 0.78 | 1.05 | 1.07 | 0.95 | 0.98 | 1.17 | 1.04 | 2.49 | 0.76 |
| 5A01_29 | Lyttelton | 2862 | 0.95 | 0.99 | 1.03 | 0.89 | 0.98 | 1.14 | 0.98 | 1.08 | 1.04 | 2.49 | 3.49 |
| 5C01_81 | Washdyke | 9942 | 0.81 | 0.99 | 1.19 | 0.95 | 1.17 | 0.96 | 0.98 | 1.03 | 1.04 | 2.49 | 1.71 |
| 5A19_73 | Hororata | 969 | 1.15 | 0.99 | 1.14 | 1.15 | 0.76 | 0.96 | 0.98 | 0.97 | 1.04 | 2.49 | 2.06 |
| 6A01_28 | Ravensbourne | 2112 | 1.00 | 0.99 | 1.23 | 0.81 | 1.00 | 1.06 | 1.00 | 0.98 | 1.04 | 2.48 | 4.26 |
| 2E07_26 | Manunui | 1185 | 1.11 | 0.99 | 0.97 | 0.99 | 1.19 | 0.92 | 0.98 | 0.91 | 1.04 | 2.48 | 2.53 |
| 2C02_97 | Ohope | 2187 | 1.00 | 0.99 | 0.88 | 1.00 | 0.84 | 1.26 | 0.98 | 1.15 | 1.03 | 2.48 | 0.46 |
| 3E03_86 | Whatatutu | 390 | 1.35 | 0.99 | 0.85 | 1.31 | 1.29 | 0.74 | 0.99 | 0.73 | 1.03 | 2.48 | 0.00 |
| 3D01_51 | Napier | 38181 | 0.81 | 0.99 | 0.90 | 1.00 | 1.38 | 1.00 | 0.99 | 1.05 | 1.03 | 2.47 | 2.57 |
| 3C08_52 | Kaponga | 1926 | 1.02 | 0.99 | 1.05 | 1.19 | 0.79 | 1.17 | 0.98 | 0.90 | 1.03 | 2.47 | 1.56 |
| 5A01_24 | Woolston | 23787 | 0.81 | 0.99 | 1.05 | 0.92 | 1.21 | 1.04 | 1.02 | 1.05 | 1.03 | 2.47 | 2.31 |
| 3E06_89 | Te Araroa | 1287 | 1.09 | 0.99 | 0.83 | 1.25 | 1.53 | 0.72 | 0.98 | 0.84 | 1.03 | 2.47 | 3.11 |
| 6A09_47 | Clutha Valley | 678 | 1.22 | 0.99 | 1.25 | 1.04 | 0.75 | 0.98 | 0.98 | 0.91 | 1.03 | 2.47 | 0.00 |
| 5B11_39 | Takaka | 1158 | 1.11 | 0.99 | 1.07 | 0.89 | 1.20 | 0.84 | 0.99 | 1.00 | 1.03 | 2.47 | 1.73 |
| 3E01_81 | Gisborne | 30879 | 0.81 | 0.99 | 0.85 | 1.03 | 1.51 | 0.99 | 0.99 | 0.99 | 1.03 | 2.47 | 3.11 |
| 3D08_68 | Norsewood | 696 | 1.22 | 0.99 | 1.08 | 1.03 | 0.87 | 0.95 | 0.98 | 0.94 | 1.03 | 2.46 | 1.44 |
| 1A01_61 | Balmoral | 32313 | 0.81 | 0.99 | 0.75 | 1.19 | 0.89 | 1.28 | 1.16 | 1.08 | 1.03 | 2.46 | 2.97 |
| 6A14_55 | Kurow | 633 | 1.24 | 0.99 | 1.21 | 0.97 | 0.73 | 0.94 | 0.98 | 1.05 | 1.03 | 2.46 | 7.90 |
| 3A16_44 | Pongaroa | 690 | 1.22 | 0.99 | 0.96 | 1.19 | 0.85 | 0.93 | 0.98 | 0.95 | 1.03 | 2.46 | 0.00 |
| 3C05_47 | Waitara | 7557 | 0.81 | 0.99 | 0.93 | 0.94 | 1.68 | 0.90 | 0.98 | 0.99 | 1.03 | 2.46 | 2.78 |
| 5A21_75 | Kaikoura | 2748 | 0.96 | 0.99 | 1.04 | 1.00 | 1.09 | 0.92 | 0.98 | 1.06 | 1.02 | 2.45 | 5.82 |
| 3C09_54 | Rahotu | 1533 | 1.06 | 0.99 | 0.92 | 1.23 | 0.94 | 1.03 | 0.98 | 0.89 | 1.02 | 2.44 | 1.30 |
| 5A19_71 | Sheffield | 483 | 1.30 | 0.99 | 1.14 | 0.93 | 0.86 | 0.89 | 0.98 | 1.00 | 1.02 | 2.44 | 0.00 |
| 6A07_44 | Omakau | 891 | 1.17 | 0.99 | 1.25 | 1.02 | 0.77 | 0.93 | 0.98 | 0.98 | 1.02 | 2.43 | 2.24 |
| 1B12_69 | Okaihau | 1467 | 1.07 | 0.99 | 0.83 | 1.01 | 1.30 | 0.93 | 1.00 | 0.95 | 1.01 | 2.43 | 4.09 |
| 2C05_95 | Taneatua | 3222 | 0.93 | 0.99 | 0.96 | 1.06 | 1.68 | 0.84 | 0.98 | 0.78 | 1.01 | 2.43 | 2.79 |
| 2A09_39 | Raglan | 3309 | 0.93 | 0.99 | 0.93 | 0.97 | 1.30 | 0.89 | 0.98 | 1.07 | 1.01 | 2.43 | 1.51 |
| 1B17_75 | Paihia | 2340 | 0.98 | 0.99 | 0.78 | 1.15 | 0.98 | 1.05 | 0.99 | 1.14 | 1.01 | 2.43 | 2.56 |
| 5A15_65 | Cheviot | 1356 | 1.08 | 0.99 | 1.16 | 1.02 | 0.85 | 0.92 | 0.98 | 1.05 | 1.01 | 2.42 | 2.21 |
| 5A01_22 | Addington | 40749 | 0.81 | 0.99 | 1.05 | 0.95 | 1.09 | 1.07 | 0.99 | 1.10 | 1.01 | 2.42 | 2.67 |
| 3B04_74 | Waitotara | 729 | 1.21 | 0.99 | 0.89 | 1.13 | 0.85 | 0.95 | 0.99 | 1.04 | 1.01 | 2.42 | 6.86 |
| 1A01_24 | St Heliers | 36186 | 0.81 | 0.99 | 0.75 | 1.11 | 0.90 | 1.40 | 1.12 | 1.07 | 1.01 | 2.42 | 1.80 |
| 6A06_43 | Millers Flat | 864 | 1.17 | 0.99 | 1.25 | 1.00 | 0.77 | 0.91 | 0.98 | 1.01 | 1.01 | 2.42 | 1.16 |
| 5D02_64 | Moana | 711 | 1.21 | 0.99 | 1.05 | 0.99 | 0.94 | 0.88 | 0.98 | 0.99 | 1.00 | 2.39 | 1.41 |
| 6B14_52 | Heriot | 453 | 1.31 | 0.99 | 1.25 | 1.05 | 0.66 | 0.93 | 0.98 | 0.98 | 1.00 | 2.39 | 4.42 |
| 5D13_78 | Westport | 6018 | 0.83 | 0.99 | 1.05 | 0.99 | 1.22 | 0.93 | 0.98 | 1.05 | 0.99 | 2.38 | 2.99 |
| 6B20_57 | Nightcaps | 1251 | 1.10 | 0.99 | 1.25 | 0.98 | 0.81 | 0.96 | 0.98 | 0.98 | 0.99 | 2.38 | 2.40 |
| 5A01_27 | New Brighton | 34494 | 0.81 | 0.99 | 1.05 | 0.89 | 1.32 | 0.97 | 1.02 | 1.02 | 0.99 | 2.37 | 2.67 |
| 4B05_65 | Martinborough | 2016 | 1.01 | 0.99 | 0.98 | 0.97 | 1.02 | 0.97 | 0.99 | 1.05 | 0.99 | 2.37 | 3.47 |
| 2B07_59 | Whitianga | 2766 | 0.96 | 0.99 | 0.84 | 0.99 | 1.22 | 0.87 | 0.98 | 1.18 | 0.99 | 2.37 | 1.45 |
| 2E01_22 | Kinloch | 852 | 1.17 | 0.99 | 1.07 | 1.10 | 0.71 | 1.03 | 0.98 | 1.00 | 0.99 | 2.37 | 1.17 |
| 1B09_66 | Kaeo | 1893 | 1.02 | 0.99 | 0.78 | 1.10 | 1.46 | 0.83 | 0.99 | 0.95 | 0.99 | 2.36 | 3.17 |

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | | temp. | | benefit | | Pac.Is. | | | | |
| | | | | south. | | owned | | income | | occup. | | fitted | actual |
| 2B07_61 | Cooks Beach | 648 | 1.23 | 0.99 | 0.84 | 1.10 | 0.78 | 0.90 | 0.98 | 1.26 | 0.99 | 2.36 | 0.00 |
| 6A18_72 | Oamaru | 12588 | 0.81 | 0.99 | 1.19 | 0.90 | 1.11 | 0.94 | 0.99 | 1.11 | 0.98 | 2.35 | 2.46 |
| 3D06_63 | Waipawa | 2301 | 0.99 | 0.99 | 1.01 | 0.98 | 1.02 | 0.98 | 0.98 | 1.03 | 0.98 | 2.34 | 1.30 |
| 6B09_43 | Gore | 9372 | 0.81 | 0.99 | 1.25 | 0.91 | 1.04 | 1.00 | 0.98 | 1.05 | 0.98 | 2.34 | 2.88 |
| 6A01_25 | Willowbank | 13350 | 0.81 | 0.99 | 1.23 | 1.12 | 0.86 | 1.00 | 1.01 | 1.03 | 0.97 | 2.33 | 3.00 |
| 4A01_26 | Northland | 20904 | 0.81 | 0.99 | 1.00 | 1.02 | 0.67 | 1.70 | 1.01 | 1.04 | 0.97 | 2.33 | 2.39 |
| 6B15_53 | Riversdale | 846 | 1.18 | 0.99 | 1.25 | 0.90 | 0.81 | 0.95 | 0.98 | 0.97 | 0.97 | 2.33 | 3.55 |
| 2B02_54 | Puriri | 759 | 1.20 | 0.99 | 0.84 | 1.06 | 0.97 | 1.02 | 0.98 | 0.94 | 0.97 | 2.32 | 0.00 |
| 3A15_43 | Woodville | 2577 | 0.97 | 0.99 | 0.98 | 0.98 | 1.12 | 0.97 | 0.98 | 0.98 | 0.97 | 2.31 | 2.33 |
| 5D01_61 | Greymouth | 6525 | 0.82 | 0.99 | 1.05 | 0.93 | 1.12 | 1.04 | 0.98 | 1.07 | 0.97 | 2.31 | 2.76 |
| 5A01_28 | Sumner | 4323 | 0.88 | 0.99 | 1.03 | 0.92 | 0.89 | 1.22 | 0.98 | 1.10 | 0.96 | 2.31 | 1.16 |
| 5B06_31 | Mapua | 2064 | 1.01 | 0.99 | 0.99 | 1.01 | 0.93 | 0.96 | 0.98 | 1.09 | 0.96 | 2.30 | 1.45 |
| 2B09_66 | Waihi | 5673 | 0.84 | 0.99 | 0.86 | 0.95 | 1.56 | 0.89 | 0.99 | 1.03 | 0.96 | 2.30 | 1.59 |
| 6B18_56 | Mossburn | 723 | 1.21 | 0.99 | 1.25 | 1.10 | 0.62 | 0.99 | 0.98 | 0.97 | 0.96 | 2.29 | 0.00 |
| 4B01_61 | Masterton | 21159 | 0.81 | 0.99 | 1.05 | 0.96 | 1.17 | 0.99 | 1.00 | 1.02 | 0.96 | 2.29 | 2.65 |
| 4B03_63 | Featherston | 3366 | 0.92 | 0.99 | 1.01 | 0.90 | 1.18 | 0.98 | 1.00 | 0.99 | 0.96 | 2.29 | 1.78 |
| 2E04_24 | Ohura | 1449 | 1.07 | 0.99 | 0.97 | 1.14 | 0.91 | 0.94 | 0.98 | 0.96 | 0.96 | 2.29 | 4.14 |
| 3C04_66 | Urenui | 1203 | 1.11 | 0.99 | 0.91 | 0.98 | 1.04 | 0.98 | 0.98 | 0.98 | 0.95 | 2.29 | 1.66 |
| 1A01_60 | Avondale | 51711 | 0.81 | 0.99 | 0.79 | 1.04 | 1.06 | 1.11 | 1.19 | 1.02 | 0.95 | 2.27 | 2.03 |
| 2A01_42 | Chartwell | 21546 | 0.81 | 0.99 | 0.93 | 1.00 | 1.20 | 1.11 | 1.00 | 0.96 | 0.95 | 2.27 | 1.67 |
| 5A04_44 | Dunsandel | 924 | 1.16 | 0.99 | 1.14 | 0.97 | 0.78 | 1.00 | 0.99 | 0.96 | 0.94 | 2.25 | 3.25 |
| 2C06_96 | Opotiki | 6684 | 0.82 | 0.99 | 0.88 | 1.02 | 1.56 | 0.87 | 0.99 | 0.96 | 0.93 | 2.24 | 1.35 |
| 6B05_36 | Thornbury | 759 | 1.20 | 0.99 | 1.25 | 0.92 | 0.81 | 0.99 | 0.98 | 0.86 | 0.93 | 2.23 | 0.00 |
| 5A01_23 | St Albans | 42327 | 0.81 | 0.99 | 1.05 | 0.95 | 1.00 | 1.12 | 0.99 | 1.05 | 0.93 | 2.23 | 2.55 |
| 5B09_36 | Motueka | 7770 | 0.81 | 0.99 | 1.05 | 0.96 | 1.26 | 0.88 | 0.98 | 1.05 | 0.93 | 2.22 | 2.45 |
| 5B01_21 | Nelson | 31461 | 0.81 | 0.99 | 1.03 | 0.93 | 1.08 | 1.06 | 0.98 | 1.07 | 0.93 | 2.22 | 1.88 |
| 1A01_62 | Mt Roskill | 36513 | 0.81 | 0.99 | 0.78 | 1.09 | 0.99 | 1.15 | 1.17 | 1.02 | 0.93 | 2.22 | 2.25 |
| 2A12_47 | Te Kuiti | 5742 | 0.84 | 0.99 | 0.94 | 1.03 | 1.27 | 0.95 | 0.99 | 0.97 | 0.92 | 2.21 | 2.44 |
| 6B13_51 | Tapanui | 1959 | 1.02 | 0.99 | 1.25 | 1.00 | 0.75 | 0.99 | 0.98 | 1.00 | 0.92 | 2.21 | 0.51 |
| 1A01_34 | Papatoetoe | 32142 | 0.81 | 0.99 | 0.85 | 0.96 | 1.07 | 1.10 | 1.22 | 0.97 | 0.91 | 2.18 | 1.87 |
| 5C05_85 | Pleasant Point | 2397 | 0.98 | 0.99 | 1.25 | 0.90 | 0.90 | 0.96 | 0.99 | 0.98 | 0.91 | 2.18 | 0.83 |
| 6A01_31 | Mosgiel | 10062 | 0.81 | 0.99 | 1.25 | 0.91 | 1.01 | 0.97 | 0.98 | 1.04 | 0.91 | 2.17 | 2.19 |
| 6B02_32 | Waimahaka | 399 | 1.34 | 0.99 | 1.23 | 0.94 | 0.68 | 0.97 | 0.98 | 0.91 | 0.91 | 2.17 | 10.03 |
| 5C06_86 | Temuka | 5880 | 0.84 | 0.99 | 1.25 | 0.91 | 1.02 | 0.91 | 0.98 | 1.06 | 0.91 | 2.17 | 2.38 |
| 2B03_57 | Coromandel | 1218 | 1.10 | 0.99 | 0.81 | 0.97 | 1.09 | 0.90 | 0.98 | 1.09 | 0.90 | 2.16 | 4.11 |
| 3A13_41 | Otaki | 7569 | 0.81 | 0.99 | 0.98 | 0.93 | 1.19 | 0.97 | 0.99 | 1.08 | 0.90 | 2.16 | 2.11 |
| 2C02_92 | Whakatane | 14193 | 0.81 | 0.99 | 0.87 | 0.97 | 1.35 | 1.00 | 0.99 | 0.99 | 0.90 | 2.16 | 0.70 |
| 3C03_65 | Okato | 1686 | 1.04 | 0.99 | 0.93 | 1.07 | 0.89 | 1.07 | 0.98 | 0.94 | 0.90 | 2.15 | 2.97 |
| 3C06_48 | Stratford | 8679 | 0.81 | 0.99 | 1.11 | 0.96 | 1.12 | 0.97 | 0.98 | 0.99 | 0.89 | 2.14 | 2.19 |
| 6B08_42 | Wyndham | 1518 | 1.06 | 0.99 | 1.25 | 0.95 | 0.78 | 0.99 | 0.98 | 0.95 | 0.89 | 2.14 | 1.98 |
| 6B19_58 | Otautau | 1857 | 1.03 | 0.99 | 1.25 | 0.94 | 0.82 | 0.97 | 0.98 | 0.95 | 0.89 | 2.14 | 2.69 |
| 3A01_21 | Palmerston North | 64047 | 0.81 | 0.99 | 0.98 | 1.05 | 0.97 | 1.09 | 1.00 | 1.01 | 0.89 | 2.14 | 2.15 |
| 6A09_46 | Balclutha | 5811 | 0.84 | 0.99 | 1.25 | 0.92 | 0.88 | 1.01 | 0.98 | 1.05 | 0.89 | 2.13 | 2.41 |
| 6A02_38 | Middlemarch | 630 | 1.24 | 0.99 | 1.25 | 1.11 | 0.68 | 0.85 | 0.98 | 0.91 | 0.89 | 2.13 | 6.35 |
| 4A07_46 | Eastbourne | 4176 | 0.89 | 0.99 | 1.04 | 0.90 | 0.66 | 1.53 | 0.98 | 1.08 | 0.89 | 2.12 | 2.87 |
| 3A09_34 | Levin | 18456 | 0.81 | 0.99 | 0.98 | 0.90 | 1.23 | 0.97 | 1.00 | 1.05 | 0.89 | 2.12 | 1.95 |
| 3D03_58 | Waipukurau | 5160 | 0.86 | 0.99 | 1.01 | 1.00 | 1.02 | 1.00 | 0.99 | 1.02 | 0.88 | 2.11 | 2.33 |
| 3C01_63 | Oakura | 1728 | 1.04 | 0.99 | 0.93 | 0.96 | 0.80 | 1.22 | 0.98 | 1.01 | 0.88 | 2.11 | 2.31 |
| 2B01_72 | Mt Maunganui | 14265 | 0.81 | 0.99 | 0.78 | 1.00 | 1.19 | 1.05 | 0.99 | 1.13 | 0.88 | 2.11 | 1.75 |
| 2B13_78 | Pukehina Beach | 2004 | 1.01 | 0.99 | 0.91 | 1.04 | 1.08 | 0.87 | 0.99 | 1.00 | 0.88 | 2.11 | 2.50 |
| 3A03_27 | Tokomaru | 1935 | 1.02 | 0.99 | 0.98 | 1.10 | 0.81 | 1.14 | 0.99 | 0.87 | 0.88 | 2.11 | 1.03 |
| 3C10_55 | Hawera | 12066 | 0.81 | 0.99 | 1.05 | 0.95 | 1.08 | 1.04 | 0.98 | 1.00 | 0.88 | 2.11 | 1.57 |
| 4A01_27 | Khandallah | 12474 | 0.81 | 0.99 | 1.00 | 0.91 | 0.65 | 1.79 | 1.00 | 1.04 | 0.88 | 2.10 | 2.16 |
| 3D04_59 | Porangahau | 603 | 1.25 | 0.99 | 0.96 | 1.14 | 0.80 | 0.86 | 1.00 | 0.94 | 0.87 | 2.09 | 13.27 |

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | | temp. | | benefit | | Pac.Is. | | | | |
| | | | | south. | | owned | | income | | occup. | | fitted | actual |
| 3B11_82 | Bulls | 2997 | 0.94 | 0.99 | 0.89 | 1.14 | 0.85 | 1.06 | 0.99 | 1.03 | 0.87 | 2.09 | 2.34 |
| 3C07_51 | Eltham | 3759 | 0.91 | 0.99 | 1.05 | 0.98 | 1.00 | 1.00 | 0.98 | 0.96 | 0.87 | 2.09 | 2.66 |
| 6A28_84 | Duntroon | 855 | 1.17 | 0.99 | 1.21 | 0.98 | 0.75 | 0.90 | 0.98 | 0.95 | 0.86 | 2.07 | 3.51 |
| 5D15_81 | Little Wanganui | 132 | 1.63 | 0.99 | 1.05 | 0.90 | 0.79 | 0.77 | 0.98 | 0.96 | 0.86 | 2.06 | 0.00 |
| 5B03_27 | Havelock | 432 | 1.32 | 0.99 | 0.94 | 0.92 | 0.76 | 0.93 | 1.01 | 1.05 | 0.86 | 2.06 | 4.63 |
| 2D06_85 | Tirau | 1782 | 1.03 | 0.99 | 0.94 | 1.15 | 0.78 | 1.07 | 0.98 | 0.95 | 0.86 | 2.06 | 3.93 |
| 3D01_52 | Haumoana | 3858 | 0.90 | 0.99 | 0.97 | 0.89 | 1.15 | 0.99 | 0.98 | 0.99 | 0.86 | 2.05 | 1.56 |
| 5C07_87 | St Andrews | 1653 | 1.05 | 0.99 | 1.19 | 0.89 | 0.95 | 0.90 | 0.98 | 0.92 | 0.86 | 2.05 | 1.81 |
| 6B09_44 | Pukerau | 585 | 1.25 | 0.99 | 1.25 | 0.94 | 0.68 | 1.02 | 0.98 | 0.87 | 0.85 | 2.04 | 3.42 |
| 5A01_33 | Governors Bay | 675 | 1.22 | 0.99 | 1.03 | 0.83 | 0.70 | 1.23 | 0.98 | 0.97 | 0.85 | 2.04 | 0.00 |
| 3A05_31 | Apiti | 972 | 1.15 | 0.99 | 1.09 | 0.98 | 0.73 | 1.04 | 0.98 | 0.93 | 0.85 | 2.04 | 0.00 |
| 6A01_32 | Outram | 2475 | 0.97 | 0.99 | 1.25 | 0.96 | 0.75 | 1.06 | 0.98 | 0.94 | 0.85 | 2.03 | 1.21 |
| 3D06_65 | Otane | 1029 | 1.14 | 0.99 | 1.01 | 0.98 | 1.05 | 0.86 | 0.99 | 0.85 | 0.84 | 2.02 | 0.97 |
| 5A13_63 | Methven | 2601 | 0.97 | 0.99 | 1.21 | 1.10 | 0.72 | 0.95 | 0.98 | 0.98 | 0.84 | 2.02 | 3.46 |
| 2A15_49 | Pio Pio | 2721 | 0.96 | 0.99 | 0.96 | 1.16 | 0.91 | 0.94 | 0.98 | 0.94 | 0.84 | 2.02 | 1.84 |
| 2B02_55 | Thames | 6759 | 0.82 | 0.99 | 0.84 | 0.98 | 1.14 | 1.01 | 0.98 | 1.11 | 0.84 | 2.02 | 2.07 |
| 4A01_48 | Trentham | 30669 | 0.81 | 0.99 | 1.05 | 0.91 | 0.93 | 1.19 | 1.01 | 0.99 | 0.84 | 2.02 | 2.28 |
| 2A01_41 | Hamilton | 84786 | 0.81 | 0.99 | 0.93 | 1.03 | 0.97 | 1.12 | 1.00 | 1.01 | 0.84 | 2.01 | 1.49 |
| 2D01_82 | Ngongotaha | 5517 | 0.85 | 0.99 | 0.98 | 0.91 | 1.18 | 0.99 | 0.99 | 0.96 | 0.84 | 2.01 | 1.99 |
| 3B03_73 | Ratana | 2010 | 1.01 | 0.99 | 0.89 | 1.10 | 1.07 | 0.87 | 0.99 | 0.92 | 0.84 | 2.01 | 1.49 |
| 6B07_41 | Edendale | 1125 | 1.12 | 0.99 | 1.25 | 0.90 | 0.73 | 0.98 | 0.98 | 0.95 | 0.84 | 2.00 | 1.78 |
| 1B03_79 | Ngunguru | 1176 | 1.11 | 0.99 | 0.77 | 0.88 | 1.00 | 1.05 | 0.98 | 1.09 | 0.84 | 2.00 | 0.85 |
| 3D07_67 | Dannevirke | 8073 | 0.81 | 0.99 | 1.04 | 0.97 | 1.05 | 1.00 | 0.98 | 1.01 | 0.83 | 2.00 | 2.35 |
| 6A03_39 | Alexandra | 5286 | 0.85 | 0.99 | 1.23 | 0.90 | 0.83 | 1.03 | 0.98 | 1.07 | 0.83 | 1.99 | 1.32 |
| 2C04_94 | Matata | 1110 | 1.12 | 0.99 | 0.87 | 0.96 | 0.96 | 0.98 | 0.98 | 0.95 | 0.83 | 1.98 | 1.80 |
| 3A17_45 | Pahiatua | 4581 | 0.88 | 0.99 | 1.02 | 0.98 | 0.96 | 1.03 | 0.99 | 0.98 | 0.83 | 1.98 | 1.96 |
| 4A01_28 | Johnsonville | 10164 | 0.81 | 0.99 | 1.00 | 0.93 | 0.71 | 1.52 | 1.00 | 1.03 | 0.83 | 1.98 | 1.97 |
| 3E03_85 | Te Karaka | 1488 | 1.07 | 0.99 | 0.85 | 1.23 | 1.00 | 0.86 | 0.98 | 0.89 | 0.82 | 1.97 | 2.69 |
| 3C01_61 | New Plymouth | 45948 | 0.81 | 0.99 | 0.93 | 0.94 | 1.08 | 1.07 | 0.98 | 1.04 | 0.82 | 1.97 | 1.78 |
| 6A17_59 | Waitahuna | 339 | 1.38 | 0.99 | 1.25 | 0.83 | 0.71 | 0.90 | 0.98 | 0.92 | 0.82 | 1.97 | 2.95 |
| 6A10_49 | Clinton | 1002 | 1.14 | 0.99 | 1.25 | 1.01 | 0.69 | 0.92 | 0.98 | 0.93 | 0.82 | 1.97 | 2.00 |
| 4B02_62 | Carterton | 5529 | 0.85 | 0.99 | 1.01 | 0.90 | 1.14 | 0.93 | 0.99 | 1.03 | 0.82 | 1.97 | 2.17 |
| 5A12_62 | Ashburton | 17352 | 0.81 | 0.99 | 1.15 | 0.89 | 0.97 | 0.98 | 0.98 | 1.06 | 0.82 | 1.96 | 1.56 |
| 4A01_43 | Stokes Valley | 9171 | 0.81 | 0.99 | 1.05 | 0.88 | 0.94 | 1.20 | 1.06 | 0.92 | 0.81 | 1.95 | 1.85 |
| 1B16_74 | Kawakawa | 5385 | 0.85 | 0.99 | 0.83 | 1.04 | 1.63 | 0.83 | 0.99 | 0.84 | 0.81 | 1.94 | 1.30 |
| 6B22_71 | Orawia | 516 | 1.28 | 0.99 | 1.25 | 0.92 | 0.70 | 0.89 | 0.98 | 0.90 | 0.81 | 1.94 | 7.75 |
| 2A01_34 | Whitikahu | 1545 | 1.06 | 0.99 | 0.82 | 1.19 | 0.86 | 1.11 | 0.98 | 0.84 | 0.81 | 1.94 | 2.59 |
| 1A09_50 | Mercer | 2859 | 0.95 | 0.99 | 0.83 | 1.10 | 0.89 | 1.14 | 1.01 | 0.91 | 0.81 | 1.93 | 1.40 |
| 3A01_23 | Bunnythorpe | 1620 | 1.05 | 0.99 | 0.98 | 0.93 | 0.84 | 1.09 | 0.98 | 0.93 | 0.81 | 1.93 | 1.23 |
| 5B05_30 | Picton | 5211 | 0.86 | 0.99 | 0.94 | 0.96 | 1.01 | 0.94 | 0.98 | 1.12 | 0.81 | 1.93 | 0.96 |
| 5B02_24 | Blenheim | 21336 | 0.81 | 0.99 | 1.01 | 0.91 | 1.05 | 0.99 | 0.98 | 1.06 | 0.81 | 1.93 | 2.16 |
| 5A05_45 | Southbridge | 1209 | 1.10 | 0.99 | 1.16 | 0.85 | 0.81 | 0.96 | 0.98 | 0.98 | 0.80 | 1.92 | 3.31 |
| 3A07_32 | Halcombe | 1305 | 1.09 | 0.99 | 0.98 | 0.98 | 0.84 | 1.01 | 0.98 | 0.92 | 0.80 | 1.92 | 0.77 |
| 3E09_94 | Wairoa | 7929 | 0.81 | 0.99 | 0.87 | 1.13 | 1.22 | 0.92 | 0.98 | 0.93 | 0.80 | 1.92 | 3.41 |
| 2D04_86 | Putaruru | 6798 | 0.82 | 0.99 | 0.94 | 1.06 | 1.05 | 1.01 | 0.99 | 0.94 | 0.80 | 1.92 | 2.94 |
| 5A01_25 | Sockburn | 49587 | 0.81 | 0.99 | 1.05 | 0.95 | 0.93 | 1.06 | 1.00 | 1.01 | 0.80 | 1.92 | 1.67 |
| 1A01_30 | Manukau | 51135 | 0.81 | 0.99 | 0.75 | 0.97 | 1.28 | 1.04 | 1.19 | 0.86 | 0.80 | 1.91 | 2.01 |
| 2B08_51 | Paeroa | 6048 | 0.83 | 0.99 | 0.83 | 0.98 | 1.26 | 0.96 | 0.99 | 0.98 | 0.80 | 1.91 | 2.31 |
| 6B06_38 | Browns | 612 | 1.24 | 0.99 | 1.25 | 0.93 | 0.59 | 1.05 | 0.98 | 0.90 | 0.79 | 1.90 | 4.90 |
| 1B20_78 | Kaiwaka | 783 | 1.19 | 0.99 | 0.71 | 1.04 | 1.18 | 0.87 | 0.98 | 0.90 | 0.79 | 1.90 | 1.28 |
| 1B15_73 | Mangonui | 2802 | 0.95 | 0.99 | 0.74 | 0.96 | 1.38 | 0.83 | 0.99 | 1.04 | 0.79 | 1.89 | 1.78 |
| 5C09_89 | Glenavy | 1983 | 1.01 | 0.99 | 1.19 | 1.02 | 0.75 | 0.91 | 0.98 | 0.97 | 0.79 | 1.89 | 0.00 |
| 5A09_49 | Hawarden | 1044 | 1.13 | 0.99 | 1.04 | 0.97 | 0.80 | 0.88 | 0.98 | 1.00 | 0.79 | 1.89 | 1.92 |
| 5A01_26 | Harewood | 43539 | 0.81 | 0.99 | 1.11 | 0.88 | 0.85 | 1.16 | 0.99 | 1.01 | 0.78 | 1.88 | 1.38 |

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | south. | temp. | owned | benefit | income | Pac.Is. | occup. | | fitted | actual |
| 3E01_82 | Manutuke | 1854 | 1.03 | 0.99 | 0.85 | 1.16 | 0.88 | 1.00 | 0.98 | 0.90 | 0.78 | 1.88 | 2.70 |
| 4B06_66 | Eketahuna | 2145 | 1.00 | 0.99 | 1.02 | 1.03 | 0.93 | 0.91 | 0.98 | 0.92 | 0.78 | 1.87 | 3.26 |
| 5A22_77 | Woodend | 2808 | 0.95 | 0.99 | 1.14 | 0.85 | 0.85 | 1.03 | 0.98 | 0.99 | 0.78 | 1.87 | 1.42 |
| 5B08_35 | Tapawera | 1041 | 1.13 | 0.99 | 0.99 | 0.96 | 0.97 | 0.81 | 0.99 | 0.93 | 0.78 | 1.87 | 1.92 |
| 5B04_29 | Seddon | 1056 | 1.13 | 0.99 | 0.98 | 0.97 | 0.85 | 0.93 | 0.98 | 0.95 | 0.78 | 1.86 | 4.73 |
| 4A01_29 | Newlands | 9786 | 0.81 | 0.99 | 1.00 | 0.89 | 0.71 | 1.53 | 1.02 | 0.98 | 0.78 | 1.86 | 1.23 |
| 5B06_32 | Upper Moutere | 1056 | 1.13 | 0.99 | 0.99 | 1.01 | 0.81 | 0.89 | 0.98 | 0.98 | 0.78 | 1.86 | 0.95 |
| 4A03_37 | Paraparaumu | 17697 | 0.81 | 0.99 | 0.98 | 0.85 | 0.96 | 1.15 | 0.99 | 1.06 | 0.78 | 1.86 | 1.53 |
| 5A24_79 | Oxford | 2271 | 0.99 | 0.99 | 1.14 | 0.86 | 0.95 | 0.87 | 0.98 | 0.99 | 0.77 | 1.85 | 1.76 |
| 2B06_56 | Tapu | 1791 | 1.03 | 0.99 | 0.84 | 0.94 | 0.93 | 0.95 | 0.98 | 1.10 | 0.77 | 1.85 | 2.23 |
| 3B10_81 | Marton | 7509 | 0.81 | 0.99 | 0.89 | 0.99 | 1.11 | 0.98 | 0.99 | 1.01 | 0.77 | 1.85 | 2.00 |
| 5A19_72 | Kirwee | 1254 | 1.10 | 0.99 | 1.14 | 0.86 | 0.71 | 1.14 | 0.98 | 0.90 | 0.77 | 1.84 | 0.80 |
| 5C02_82 | Fairlie | 1875 | 1.02 | 0.99 | 1.25 | 0.99 | 0.73 | 0.87 | 0.98 | 0.98 | 0.77 | 1.84 | 4.27 |
| 1B01_12 | Whangarei | 35124 | 0.81 | 0.99 | 0.77 | 0.97 | 1.27 | 1.00 | 0.99 | 1.03 | 0.77 | 1.84 | 2.31 |
| 3A04_28 | Feilding | 13425 | 0.81 | 0.99 | 0.98 | 0.92 | 1.04 | 1.02 | 0.98 | 1.01 | 0.77 | 1.84 | 2.23 |
| 1A01_64 | Glen Eden | 27069 | 0.81 | 0.99 | 0.79 | 0.93 | 1.09 | 1.06 | 1.16 | 0.98 | 0.76 | 1.83 | 1.96 |
| 1A01_46 | Clevedon | 1698 | 1.04 | 0.99 | 0.85 | 1.02 | 0.73 | 1.24 | 0.98 | 0.95 | 0.76 | 1.83 | 1.18 |
| 1A01_44 | Kawakawa Bay | 624 | 1.24 | 0.99 | 0.75 | 0.97 | 0.78 | 1.08 | 0.98 | 1.03 | 0.76 | 1.83 | 0.00 |
| 1B14_72 | Kaitaia | 8850 | 0.81 | 0.99 | 0.74 | 1.05 | 1.48 | 0.88 | 0.99 | 0.96 | 0.76 | 1.82 | 2.15 |
| 2A14_46 | Otorohanga | 6636 | 0.82 | 0.99 | 0.94 | 1.08 | 0.94 | 1.04 | 0.98 | 0.95 | 0.76 | 1.82 | 1.51 |
| 4B04_64 | Greytown | 3597 | 0.91 | 0.99 | 1.01 | 0.97 | 0.84 | 1.02 | 0.98 | 1.01 | 0.76 | 1.81 | 1.11 |
| 5A19_69 | Darfield | 1974 | 1.01 | 0.99 | 1.14 | 0.95 | 0.74 | 0.98 | 0.98 | 0.97 | 0.75 | 1.80 | 1.52 |
| 1B04_17 | Ruakaka | 3348 | 0.92 | 0.99 | 0.77 | 0.99 | 1.09 | 1.00 | 0.99 | 1.00 | 0.75 | 1.79 | 0.90 |
| 2C01_91 | Kawerau | 10548 | 0.81 | 0.99 | 0.87 | 0.93 | 1.25 | 1.09 | 1.00 | 0.85 | 0.75 | 1.79 | 2.56 |
| 2A10_45 | Te Awamutu | 16386 | 0.81 | 0.99 | 0.94 | 0.98 | 1.03 | 1.02 | 0.98 | 0.99 | 0.75 | 1.79 | 1.22 |
| 1B06_63 | Ruawai | 1557 | 1.06 | 0.99 | 0.77 | 1.05 | 0.93 | 0.97 | 0.99 | 0.99 | 0.75 | 1.79 | 2.57 |
| 6B06_37 | Winton | 4041 | 0.89 | 0.99 | 1.25 | 0.86 | 0.75 | 1.01 | 0.98 | 1.04 | 0.75 | 1.78 | 1.73 |
| 1A01_21 | Remuera | 28521 | 0.81 | 0.99 | 0.75 | 1.04 | 0.70 | 1.59 | 1.00 | 1.07 | 0.74 | 1.78 | 2.14 |
| 2A05_31 | Te Kauwhata | 2691 | 0.96 | 0.99 | 0.90 | 1.10 | 0.86 | 0.96 | 0.98 | 0.96 | 0.74 | 1.78 | 0.37 |
| 5A04_43 | Leeston | 2304 | 0.99 | 0.99 | 1.15 | 0.90 | 0.77 | 1.01 | 0.98 | 0.97 | 0.74 | 1.78 | 0.87 |
| 3D01_54 | Bay View | 2943 | 0.95 | 0.99 | 0.90 | 0.97 | 0.90 | 1.03 | 0.98 | 0.98 | 0.74 | 1.77 | 1.70 |
| 3A04_29 | Cheltenham | 1119 | 1.12 | 0.99 | 0.98 | 1.04 | 0.71 | 1.03 | 0.98 | 0.90 | 0.74 | 1.77 | 1.79 |
| 2B13_79 | Te Puke | 9252 | 0.81 | 0.99 | 0.91 | 0.98 | 1.12 | 0.96 | 0.98 | 0.98 | 0.74 | 1.76 | 1.30 |
| 6B12_47 | Waikaka | 849 | 1.18 | 0.99 | 1.25 | 0.92 | 0.64 | 1.00 | 0.98 | 0.87 | 0.73 | 1.74 | 0.00 |
| 1A01_38 | Papakura | 44109 | 0.81 | 0.99 | 0.85 | 0.96 | 1.04 | 1.12 | 1.05 | 0.91 | 0.73 | 1.74 | 1.59 |
| 1A08_48 | Mangatangi | 987 | 1.14 | 0.99 | 0.84 | 1.04 | 0.76 | 1.13 | 0.98 | 0.87 | 0.72 | 1.73 | 8.11 |
| 6B02_31 | Tokanui | 645 | 1.23 | 0.99 | 1.25 | 0.84 | 0.63 | 1.01 | 0.98 | 0.89 | 0.72 | 1.72 | 4.65 |
| 4A05_38 | Waikanae | 7368 | 0.81 | 0.99 | 0.98 | 0.82 | 0.82 | 1.19 | 0.98 | 1.18 | 0.72 | 1.72 | 0.41 |
| 1B21_16 | Waipu | 1461 | 1.07 | 0.99 | 0.77 | 1.03 | 0.92 | 0.90 | 0.99 | 1.05 | 0.72 | 1.72 | 0.00 |
| 1B01_14 | Whangarei Heads | 1146 | 1.12 | 0.99 | 0.77 | 0.89 | 0.87 | 1.02 | 0.98 | 1.10 | 0.72 | 1.71 | 3.49 |
| 2B04_52 | Ngatea | 3879 | 0.90 | 0.99 | 0.84 | 1.05 | 0.90 | 1.09 | 0.98 | 0.94 | 0.71 | 1.70 | 1.03 |
| 1B05_13 | Te Kopuru | 1296 | 1.09 | 0.99 | 0.77 | 0.90 | 1.09 | 0.91 | 1.00 | 0.96 | 0.71 | 1.70 | 3.86 |
| 1A16_91 | Manly | 6639 | 0.82 | 0.99 | 0.83 | 0.90 | 0.99 | 1.06 | 0.98 | 1.10 | 0.69 | 1.66 | 2.41 |
| 1A01_81 | Devonport | 15099 | 0.81 | 0.99 | 0.75 | 1.05 | 0.80 | 1.26 | 1.00 | 1.08 | 0.69 | 1.65 | 2.45 |
| 1A01_66 | Te Atatu | 8634 | 0.81 | 0.99 | 0.79 | 0.90 | 1.10 | 1.03 | 1.13 | 0.94 | 0.69 | 1.65 | 0.69 |
| 2A07_36 | Morrinsville | 8958 | 0.81 | 0.99 | 0.89 | 1.01 | 0.93 | 1.07 | 0.98 | 0.98 | 0.69 | 1.64 | 1.34 |
| 3C02_64 | Inglewood | 6624 | 0.82 | 0.99 | 1.11 | 0.96 | 0.86 | 1.00 | 0.98 | 0.93 | 0.68 | 1.64 | 1.66 |
| 1A12_89 | Helensville | 5139 | 0.86 | 0.99 | 0.82 | 0.94 | 1.11 | 0.97 | 1.01 | 0.95 | 0.68 | 1.63 | 2.34 |
| 5B02_26 | Renwick | 2790 | 0.95 | 0.99 | 1.04 | 0.88 | 0.81 | 1.04 | 0.98 | 0.95 | 0.68 | 1.63 | 2.87 |
| 1A14_94 | Leigh | 1326 | 1.09 | 0.99 | 0.71 | 0.87 | 0.98 | 0.94 | 0.99 | 1.11 | 0.68 | 1.63 | 1.51 |
| 2A03_44 | Cambridge | 15321 | 0.81 | 0.99 | 0.93 | 0.95 | 0.91 | 1.08 | 0.98 | 0.98 | 0.68 | 1.62 | 1.04 |
| 5A22_76 | Rangiora | 11127 | 0.81 | 0.99 | 1.14 | 0.85 | 0.87 | 1.01 | 0.98 | 1.01 | 0.68 | 1.62 | 1.71 |
| 2B01_71 | Tauranga | 49503 | 0.81 | 0.99 | 0.78 | 0.89 | 1.12 | 1.04 | 0.98 | 1.05 | 0.67 | 1.61 | 1.54 |
| 1A01_70 | Laingholm | 2907 | 0.95 | 0.99 | 0.84 | 0.80 | 0.86 | 1.26 | 0.99 | 0.98 | 0.67 | 1.61 | 2.41 |

| FRA | Station | Population | Relative risk from... | | | | | | | | Product | Fires per 1000 pop | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pop. | south. | temp. | owned | benefit | income | Pac.Is. | occup. | | fitted | actual |
| 3E01_83 | Patutahi | 1284 | 1.09 | 0.99 | 0.85 | 1.07 | 0.84 | 0.93 | 0.98 | 0.88 | 0.67 | 1.61 | 1.56 |
| 1A08_55 | Pukekohe | 13899 | 0.81 | 0.99 | 0.83 | 0.98 | 0.97 | 1.11 | 1.00 | 0.96 | 0.67 | 1.61 | 1.87 |
| 2B04_53 | Turua | 1068 | 1.13 | 0.99 | 0.84 | 1.04 | 0.72 | 1.06 | 0.99 | 0.91 | 0.67 | 1.61 | 0.00 |
| 1B07_15 | Portland | 1131 | 1.12 | 0.99 | 0.77 | 1.01 | 0.87 | 1.02 | 0.98 | 0.89 | 0.67 | 1.61 | 0.88 |
| 3D01_53 | Havelock North | 9990 | 0.81 | 0.99 | 0.97 | 0.85 | 0.81 | 1.20 | 0.99 | 1.04 | 0.66 | 1.59 | 1.90 |
| 4A01_33 | Tawa | 13206 | 0.81 | 0.99 | 0.91 | 0.90 | 0.77 | 1.38 | 1.04 | 0.93 | 0.66 | 1.59 | 0.76 |
| 1B05_62 | Dargaville | 8208 | 0.81 | 0.99 | 0.77 | 0.98 | 1.25 | 0.92 | 0.98 | 0.98 | 0.66 | 1.59 | 0.85 |
| 4A02_44 | Wainuiomata | 17616 | 0.81 | 0.99 | 1.05 | 0.82 | 0.91 | 1.12 | 1.08 | 0.87 | 0.66 | 1.58 | 1.36 |
| 2C03_93 | Edgecumbe | 3762 | 0.91 | 0.99 | 0.87 | 0.99 | 0.91 | 1.07 | 0.98 | 0.89 | 0.66 | 1.58 | 1.86 |
| 2A07_35 | Tahuna | 1974 | 1.01 | 0.99 | 0.81 | 1.13 | 0.80 | 1.05 | 0.98 | 0.86 | 0.66 | 1.58 | 1.01 |
| 2A06_38 | Matamata | 11004 | 0.81 | 0.99 | 0.85 | 1.04 | 0.92 | 1.05 | 0.98 | 0.98 | 0.66 | 1.58 | 1.64 |
| 6B17_55 | Balfour | 1050 | 1.13 | 0.99 | 1.25 | 0.96 | 0.63 | 0.95 | 0.98 | 0.84 | 0.66 | 1.58 | 1.90 |
| 1A10_51 | Tuakau | 4965 | 0.86 | 0.99 | 0.83 | 0.98 | 1.04 | 1.00 | 0.99 | 0.91 | 0.66 | 1.57 | 0.81 |
| 6A18_73 | Weston | 1833 | 1.03 | 0.99 | 1.19 | 0.82 | 0.79 | 0.93 | 0.98 | 0.92 | 0.66 | 1.57 | 1.09 |
| 5A03_41 | Lincoln | 4548 | 0.88 | 0.99 | 1.14 | 0.97 | 0.67 | 1.07 | 0.98 | 0.96 | 0.65 | 1.56 | 0.66 |
| 1A01_43 | Beachlands | 3810 | 0.90 | 0.99 | 0.85 | 0.88 | 0.81 | 1.18 | 0.99 | 1.04 | 0.65 | 1.56 | 2.36 |
| 1A01_65 | Henderson | 52545 | 0.81 | 0.99 | 0.79 | 0.89 | 1.02 | 1.08 | 1.15 | 0.92 | 0.65 | 1.56 | 2.04 |
| 1A01_80 | Takapuna | 32259 | 0.81 | 0.99 | 0.75 | 0.96 | 0.77 | 1.32 | 1.01 | 1.10 | 0.65 | 1.55 | 1.33 |
| 4A01_35 | Plimmerton | 5505 | 0.85 | 0.99 | 0.92 | 0.84 | 0.67 | 1.47 | 0.99 | 1.00 | 0.65 | 1.55 | 2.54 |
| 1B19_77 | Maungaturoto | 2775 | 0.96 | 0.99 | 0.71 | 1.08 | 1.02 | 0.93 | 0.99 | 0.94 | 0.64 | 1.54 | 0.72 |
| 5A23_78 | Cust | 1092 | 1.12 | 0.99 | 1.14 | 0.89 | 0.64 | 1.01 | 0.98 | 0.88 | 0.63 | 1.52 | 1.83 |
| [illegible]_25 | Wairau Valley | 696 | 1.22 | 0.99 | 1.04 | 0.94 | 0.66 | 0.96 | 0.98 | 0.86 | 0.63 | 1.51 | 1.44 |
| 3A02_25 | Rongotea | 2691 | 0.96 | 0.99 | 0.98 | 0.94 | 0.76 | 1.05 | 0.98 | 0.91 | 0.63 | 1.50 | 2.23 |
| 1A11_57 | Waiuku | 9777 | 0.81 | 0.99 | 0.88 | 0.96 | 0.86 | 1.16 | 0.99 | 0.94 | 0.63 | 1.50 | 2.35 |
| 2A08_37 | Te Aroha | 7431 | 0.81 | 0.99 | 0.81 | 1.01 | 0.93 | 1.07 | 0.98 | 0.98 | 0.63 | 1.50 | 1.88 |
| 3A01_22 | Ashurst | 2619 | 0.97 | 0.99 | 0.98 | 0.79 | 0.86 | 1.05 | 0.99 | 0.93 | 0.63 | 1.50 | 1.15 |
| 2B11_76 | Katikati | 4785 | 0.87 | 0.99 | 0.82 | 0.95 | 1.04 | 0.91 | 0.98 | 1.00 | 0.62 | 1.49 | 2.09 |
| 1A13_93 | Warkworth | 8433 | 0.81 | 0.99 | 0.83 | 0.91 | 0.99 | 0.97 | 0.99 | 1.08 | 0.62 | 1.48 | 0.95 |
| 1A08_56 | Patumahoe | 1764 | 1.03 | 0.99 | 0.83 | 1.00 | 0.66 | 1.18 | 1.01 | 0.92 | 0.62 | 1.48 | 1.13 |
| 6B01_24 | Wallacetown | 3417 | 0.92 | 0.99 | 1.25 | 0.82 | 0.72 | 1.04 | 0.98 | 0.90 | 0.61 | 1.47 | 2.05 |
| 5A03_42 | Rolleston | 3057 | 0.94 | 0.99 | 1.14 | 0.84 | 0.74 | 1.08 | 0.98 | 0.87 | 0.61 | 1.47 | 1.64 |
| 5A02_40 | Kaiapoi | 9573 | 0.81 | 0.99 | 1.05 | 0.84 | 0.91 | 0.99 | 0.98 | 0.98 | 0.61 | 1.47 | 2.40 |
| 5B07_33 | Richmond | 11001 | 0.81 | 0.99 | 1.03 | 0.87 | 0.85 | 1.00 | 0.98 | 1.01 | 0.61 | 1.46 | 1.82 |
| 4A01_47 | Silverstream | 4965 | 0.86 | 0.99 | 1.05 | 0.82 | 0.65 | 1.40 | 0.99 | 0.92 | 0.61 | 1.46 | 2.01 |
| 1B02_64 | Hikurangi | 2814 | 0.95 | 0.99 | 0.77 | 0.95 | 1.09 | 0.89 | 0.98 | 0.92 | 0.61 | 1.45 | 2.49 |
| 1A16_90 | Silverdale | 16941 | 0.81 | 0.99 | 0.82 | 0.90 | 0.89 | 1.08 | 0.99 | 1.07 | 0.60 | 1.43 | 1.12 |
| 1B01_19 | Kamo | 10932 | 0.81 | 0.99 | 0.77 | 0.91 | 1.13 | 1.00 | 0.98 | 0.96 | 0.59 | 1.42 | 1.65 |
| 1A01_67 | Waitemata | 18939 | 0.81 | 0.99 | 0.75 | 0.97 | 0.89 | 1.16 | 1.10 | 0.87 | 0.58 | 1.39 | 1.53 |
| 1A01_82 | Birkenhead | 55335 | 0.81 | 0.99 | 0.75 | 0.89 | 0.82 | 1.29 | 1.02 | 0.99 | 0.58 | 1.38 | 1.32 |
| 1B10_67 | Kerikeri | 5238 | 0.86 | 0.99 | 0.78 | 0.96 | 0.86 | 1.03 | 0.98 | 1.04 | 0.57 | 1.36 | 0.57 |
| 1A15_95 | Wellsford | 3849 | 0.90 | 0.99 | 0.71 | 0.99 | 1.07 | 0.90 | 0.98 | 0.94 | 0.57 | 1.36 | 0.52 |
| 1A01_84 | Greenhithe | 2754 | 0.96 | 0.99 | 0.79 | 0.81 | 0.74 | 1.37 | 0.98 | 0.93 | 0.56 | 1.35 | 1.09 |
| 3D01_55 | Taradale | 10839 | 0.81 | 0.99 | 0.90 | 0.84 | 0.83 | 1.09 | 0.98 | 1.04 | 0.56 | 1.33 | 0.92 |
| 1A01_71 | Waiatarua | 2061 | 1.01 | 0.99 | 0.79 | 0.80 | 0.68 | 1.33 | 0.99 | 0.96 | 0.54 | 1.30 | 2.43 |
| 5B08_34 | Wakefield | 3780 | 0.91 | 0.99 | 0.99 | 0.85 | 0.79 | 0.96 | 0.98 | 0.94 | 0.53 | 1.27 | 1.06 |
| 2B12_77 | Omokoroa | 4221 | 0.89 | 0.99 | 0.78 | 0.89 | 0.84 | 1.01 | 0.98 | 1.02 | 0.52 | 1.25 | 0.71 |
| 1A01_69 | Titirangi | 15297 | 0.81 | 0.99 | 0.79 | 0.82 | 0.78 | 1.28 | 1.01 | 0.97 | 0.51 | 1.22 | 1.50 |
| 1A01_32 | Howick | 56700 | 0.81 | 0.99 | 0.85 | 0.83 | 0.69 | 1.31 | 0.99 | 0.95 | 0.48 | 1.15 | 1.18 |
| 1A01_83 | East Coast Bays | 43893 | 0.81 | 0.99 | 0.75 | 0.85 | 0.74 | 1.28 | 0.99 | 0.97 | 0.47 | 1.12 | 1.25 |
| 1A01_86 | Kumeu/Huapai | 7887 | 0.81 | 0.99 | 0.82 | 0.86 | 0.75 | 1.15 | 1.00 | 0.92 | 0.45 | 1.07 | 1.14 |

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